

# СПИСЪК

## на цитатите на трудовете (без автоцитати)

### I. Цитирания на монографии и книги

**D.-W. Gu, P. Petkov, M. Konstantinov.** *Robust Control Design with MATLAB*. Springer, London, 2005.

1. S. Barrachina, P. Benner, E.S. Quintana-Orti. Efficient algorithms for generalized algebraic Bernoulli equations based on the matrix sign function. *Numerical Algorithms*, 46(2007), 351-367. ISSN: 1017-1398, DOI:10.1007/s11075-007-9143-x
2. A. Azaiz, Y. Ramdani, A. Meroufel. Design of robust control systems for the PMS motor. *Journal of Electrical Engineering*, 58(2007), 326-333. ISSN: 1335-3632
3. M. Vagia, G. Nikolakopoulos, A. Tzes. An  $H_\infty$ -control scheme for an electrostatic micro-actuator with structured uncertainty. *Proceedings of the IEEE 22nd Int. Symp. on Intelligent Control, Singapore 2007 (ISIC 2007). IEEE, 2007, 130-135*. DOI: 10.1109/CCA.2007.4389218
4. V. Mehrmann, H. Xu. *Perturbation of purely imaginary eigenvalues of Hamiltonian matrices under structured perturbations*. Preprint 410, DFG Research Center MATHEON, Technical University of Berlin, 2007.
5. W. Shen, J. Gu, E. Milos. Robust design for bilateral teleoperation system with Markov jumping parameters. *Proceedings of the IEEE/RSJ Int. Conf. on Intelligent Robots and Systems, San Diego, CA, USA, Oct. 29 - Nov. 2, 2007. IEEE, 2007, pp. 2679-2684*. ISBN: 978-1-4244-0911-2, DOI: 10.1109/IROS.2007.4399608
6. D.J. Walker, M. Voskuijl. Active control of flight paths and critical loads in tilt-rotor aircraft. *Proceedings of the American Helicopter Society 63rd Annual Forum, Virginia Beach, VA, May 1-3, 2007*.
7. V. Milić. *Analiza stabilnosti mehaničkih sustava primjenom linearnih matričnih nejednadžbi*. Preprint, Seminarski rad iz kolegija vodenje tehničkih sustava, Sveučilište u Zagrebu, Fakultet strojarstva i brodogradnje. Zagreb, 2007.
8. S.-h. Lui. *Analog Circuit Design by Nonconvex Polynomial Optimization : Two Design Examples*. Master of Philosophy Thesis, The University of Hong Kong, Dec. 2007.
9. L. Huo, G. Song, H. Li.  $H_\infty$  based robust structural vibration control using an AMD. *Recent Developments in Structural Engineering, Mechanics and Computation, Proceedings of the Third International Conference on Structural Engineering, Mechanics and Computation, 10-12 September 2007, Cape Town, South Africa, A. Zingoni (ed.), 216-222*.
10. L. Huo, G. Song, H. Li, K. Grigoriadis.  $H_\infty$  robust control design of active structural vibration suppression using an active mass damper. *Smart Materials and Structures*, 17(2008)0150219 (10pp). DOI: 10.1088/0964-1726/17/01/015021
11. L. Lei, W. Benli. Multi objective robust active vibration control for flexure joined struts of Stewart platforms via  $H_\infty$  and  $\mu$  synthesis. *Chinese Journal of Aeronautics*, 21 (2008), 125-133. doi:10.1016/S1000-9361(08)60016-3
12. G. Gauthier, B. Boulet. Robust design of terminal ILC with  $H_\infty$  mixed sensitivity approach for a thermoforming oven. *Journal of Control Science and Engineering*, vol. 2008, Article ID 289391, 6 pages, 2008. doi:10.1155/2008/289391

13. S. Gherbi, S. Yahmedi, M. Sedraoui. Robust control of a doubly fed asynchronous machine of a wind turbine system. *European Journal of Scientific Research*, 20(2008), 796-804. ISSN: 1450-216X
14. S. Kaitwanidvilay, M. Parnichkun. Design of structured controller satisfying  $H_\infty$  loop shaping using evolutionary optimization: Application of a pneumatic robot arm. *Engineering Letters*, 16:2, 2008, EL\_16\_2\_03. ISSN: 1816-093X
15. M. Rehan, N. Iqbal. Decentralized robust control of a MIMO system using parametric & non-diagonal interaction uncertainty modeling. *Proc. Second International Conference on Electrical Engineering, University of Engineering and Technology, Lahore, Pakistan, 25-26 March 2008*, pp. 1-7. ISBN: 978-1-4244-2292-0
16. O. Taiwo, K. Owa, A. Akere, T. Ajetunmbi. Robust multivariable control system design using the method of inequalities. *Proceedings of the UKACC 2008 Control Conference, Manchester, UK, 2-4 Sept. 2008*, paper p120.
17. V. Mehrmann, H. Xu. Perturbation of purely imaginary eigenvalues of Hamiltonian matrices under structured perturbations. *Electronic Journal of Linear Algebra*, 17(2008), 234-257.
18. S. Yordanova. Robustness of systems with various PI-like fuzzy controllers for industrial plants with time delay. *WSEAS Transactions on Circuits and Systems*, 7(2008), 528-534. ISSN: 1109-2734
19. I. Maciejewski. The application of robust control for vibration damping of working machines seat suspensions. *Proceedings in Applied Mathematics and Mechanics*, 8(2008), 10895-10896.
20. R. Bautista-Quintero, M.J. Pont. Implementation of  $H_\infty$  control algorithms for sensor-constained mechatronic systems using low-cost microcontrollers. *IEEE Transactions on Industrial Informatics*, 4(2008), 175-184. DOI: 10.1109/TII.2008.2002703
21. S. Ozana. Visualization of active suspension by robust controller in Virtual Reality Toolbox. *Proceedings of the 19th International Conference on Systems Engineering, ICSENG'08, 19-21 Aug. 2008, Las Vegas, NV*, 38-42.
22. A.F. Mazoni. *Estudo de técnicas de controle H-infinito para estruturas flexíveis com intercentezas*, PhD Thesis, Universidade Estadual de Campinas, Campinas, SP, Brasil, 2008.
23. A. Azaiz, Y. Ramdani, A. Meroufel, B. Belabbes.  $H_\infty$  design of controllers ensuring the regulation of currents of the decoupled field orientation control applied to a PMS motor. *Acta Electrotechnica et Informatica*, 8(2008), 51-59. ISSN: 1335-8243
24. V. Matešić. *Robusno Upravljanje: MDS Sustav*. Preprint, Seminarski rad, Sveučilište u Zagrebu, Fakultet strojarstva i brodogradnje. Zagreb, 2008.
25. S. Shah. *Design & Implementation of Parallel Operation of Inverters with Instantaneous Current Sharing Scheme Using Multiloop Control Strategy on FPGA Platform*, MSc Thesis, Department of Electrical Engineering, Indian Institute of Technology, Kanpur, 2008.
26. G. Sofiane, Y. Said, S. Moussa. Robust  $H_\infty$  control of a doubly fed asynchronous machine. *Informatica*, 32(2008), 151-158.
27. A.N. Cuk Supriyadi, I. Ngamroo, A. Kunakorn, S. Dechanupaprittha, M. Watanabe, Y. Mitani, T. Hashiguchi, T. Goda. Inverse additive perturbation-based optimization of robust PSS in an interconnected power system with wind farms. *Proceedings of the SICE Annual Conference, August 20-22, 2008, Tokyo*, 237-240.
28. K. Szabat. Direct and indirect adaptive control of a two-mass drive system - a comparison. *Proceedings of the IEEE International Symposium on Industrial Electronics (ISIE 2008), June 30 - July 2, 2008, Cambridge, UK*, 564-569. DOI: 10.1109/ISIE.2008.4677103

29. C.L. Castillo. *Fault-Tolerant Adaptive Model Predictive Control Using Joint Kalman Filter for Small-Scale Helicopter*, PhD Dissertation, Department of Electrical Engineering, College of Engineering, University of South Florida, 2008.
30. F. Geng, X.-p. Zhou. The research of nonlinear robust guidance law for high speed unmanned attack air vehicle. *Journal of Astronautics*, 29(2008), 922-927.
31. L.H. Cortés, L.V. López. Una herramienta para el diseño de controladores robustos. *Scientia et Technica, Universidad Tecnológica de Pereira, Pereira, Colombia, Año XVI, 2008, 19-24*. ISSN 0122-17012008
32. I. Ngamroo, A.N. Cuk Supriyadi, S. Dechanupaprittha, Y. Mitani. Power oscillation suppression by robust SMES in power system with large wind power penetration. *Physica C*, 469(2009), 44-51. <http://dx.doi.org/10.1016/j.physc.2008.11.002>
33. V. Ten. Design of nonlinear robust control in a class of structurally stable functions. *World Academy of Science, Engineering and Technology (WASET), International Journal of Computer, Electrical, Automation, Control and Information Engineering*, 3(2009), 1851-1859. [scholar.waset.org/1999.4/11027](http://scholar.waset.org/1999.4/11027)
34. V. Ten. Approach to design of robust control systems by structurally stable functions from catastrophe theory. *Applied Mathematical Sciences*, 3(2009), 1655-1674. ISSN 1312-885X
35. S. Yordanova. A frequency domain design of robust fuzzy PI controller for industrial processes. *International Journal of Automation and Control*, 3(2009), 4-25. ISSN: 1740-7516, DOI: 10.1504/IJAAC.2009.023068
36. S. Yordanova. Robust stability of single input fuzzy system for control of industrial plants with time delay. *Journal of Intelligent and Fuzzy Systems*, 20(2009), 29-43. ISSN 1064-1246
37. G. Gauthier, B. Boulet. Terminal Iterative Learning Control design with Singular Value Decomposition Decoupling for thermoforming ovens. *Proceedings of the 2009 American Control Conference, St. Louis, MO, USA, June 10-12, 2009, IEEE, 2009, 1640-1645*. ISBN: 978-1-4244-4523-3
38. S. Yordanova. Robust performance design of single-input fuzzy control system for plant with time delay. *Transactions of the Institute of Measurements and Control*, 31(2009), 381-399.
39. A.R. Maouche, M. Attari. Hybrid adaptive neural control for flexible manipulators. *International Journal of Intelligent Systems Technologies and Applications*, 7(2009), 396-413. <http://dx.doi.org/10.1504/IJISTA.2009.028055>, ISSN: 1740-8865
40. S.L.H. Verhoeven. *Robust Control of Flexible Motion Systems: A Literature Study*. DCT 2009.006, Internal Report, Department of Mechanical Engineering, Eindhoven University of Technology, Netherlands, 2009.
41. N. Talebi, M.A. Sadrnia, S.M.R. Rafiei. Current and voltage control of paralleled multi-module inverter system. *Proceedings of the 17th Mediterranean Conference on Control and Automation, June 24-26, 2009, Tessaaloniki, Greece. IEEE, 2009, 1498-1503*. ISBN: 978-1-4244-4684-1, DOI: 10.1109/MED.2009.5164759
42. A.P. Popov, H. Werner. A robust control approach to formation control. *Proceedings of the 2009 European Control Conference, August 23-26, 2009, Budapest, Hungary, 4428-4433*.
43. I. Ngamroo, C.S. Ali Nanda, S. Dechanupaprittha, M. Watanabe, Y. Mitani. A robust SMES controller design for stabilization of inter-area oscillations based on wide area synchronized phasor measurements. *Electric Power Systems Research*, 79(2009), 1738-1749. <http://dx.doi.org/10.1016/j.epsr.2009.07.014>

44. S. Chauhan, Swandito, G.G.I. Seet. Hybrid supervisory control for biomechatronic systems for non-invasive surgery. *Solid State Phenomena*, 147-149(2009), 251-257. DOI: 10.4028/www.scientific.net/SSP.147-149.251
45. M.T.A. Ahmed, A. Ahmed, N. Iqbal. Introducing identification and robust controller design of a three-tank-plant as a teaching lab experiment. *Proceedings of 2nd International Conference on Computer, Control and Communication IC4 2009, 17-18 February 2009, Karachi, Pakistan. IEEE, 2009, 263-268*. ISBN: 978-1-4244-3312-4, DOI: 10.1109/IC4.2009.4909216
46. S.M. Raafat, W. Martono, R. Akmeliawati. Comparative study of parametric and intelligent unstructured uncertainties for robust controller design. *Proceedings of the IEEE Symposium on Industrial Electronics & Applications (ISIEA 2009), 4-6 October 2009, Kuala Lumpur, Malaysia. IEEE, 2009, 259-264*. DOI: 10.1109/ISIEA.2009.5356444
47. T.K. Gangopadhyay, A. Sil, S. Paul. Design of robust UPFC controller for damping power system oscillations using  $H_\infty$  mixed sensitivity approach. *Proceedings of the 8th International Conference on Advance in Power System Control, Operation and Management (APSCOM'2009), 8-11 November 2009, Hong Kong, China, 1-6*.
48. D. Bourlis, J.A.M. Bleijs. Gain scheduled controller with wind speed estimation via Kalman filtering for a stall regulated variable speed wind turbine. *Proceedings of the 44th International Universities Power Engineering Conference UPEC 2009, 01-04 September 2009, Glasgow, UK. IEEE, 2009, 897-901*.
49. S. Kang, H.J. Kim, J. Lee. Roll-pitch-yaw integrated robust autopilot design for a high angle-of-attack missile. *Journal of Guidance Control and Dynamics*, 32(2009), 1622-1628. DOI: 10.2514/1.39812
50. B. Liu, H. Hu. Group delay induced instabilities and Hopf bifurcations, of a controlled double pendulum. *International Journal of Non-Linear Mechanics*, 45(2010), 442-452. <http://dx.doi.org/10.1016/j.ijnonlinmec.2010.01.001>
51. G. Reynoso-Meza, J. Sanchis, X. Blasco, M. Martinez. Design of continuous controllers using a multiobjective differential evaluation algorithm with spherical pruning. In *EvoApplications 2010, Part I, Lecture Notes in Computer Science 6024*, C.D. Chiao et al. (Eds.), Springer-Verlag, Berlin 2010, 532-541. DOI: 10.1007/978-3-642-12239-2\_55
52. M. Zareh, M. Rezaei, J. Roshanian, A. Khaki-sedigh. Flight control of a launch vehicle using an L1 adaptive controller. *Proceedings of the Institute of Mechanical Engineers, Part I: Journal of Systems and Control Engineering*, 224(2010), 113-124. DOI: 10.1243/09596518JSCE892
53. I. Ngamroo. Robust SMES controller design based on inverse additive perturbation for stabilization of interconnected power systems with wind farms. *Energy Conversion and Management*, 51(2010), 459-464. <http://dx.doi.org/10.1016/j.enconman.2009.10.008>
54. I. Maciejewsky, L. Meyer, T. Krzyzynski. The vibration damping effectiveness of an active seat suspension system and its robustness to varying mass loading. *Journal of Sound and Vibration* 329(2010), 3898-3914. <http://dx.doi.org/10.1016/j.jsv.2010.04.009>
55. X. Wang, C. Zhao, Z. Li. Robust H-infinity tracing control of 3-DOF helicopter model. *Proceedings of the 2010 International Conference on Measuring Technology and Mechatronics Automation, March 13-March 14 2010, Changsha, China, vol. 3, 279-282*.
56. K. Szabat, P. Serkies, T. Orłowska-Kowalska, M. Cychowski. Robust torque constraints handling in drive systems with elastic transformation. *Proceedings of the 2010 IEEE Conference on Industrial Technology ICIT 2010, 14-17 March 2010, Viña del Mar, Chile, 398-403*. DOI: 10.1109/ICIT.2010.5472767

57. J. Chen. *Robust Linear Parameter Varying Control of an Unmanned Aerial Vehicle*, PhD Thesis, Department of Engineering, University of Leicester, UK, 2010.
58. H.A. Coral Enriquez. *Control Robusto Activo para la Minimización de Vibraciones en una Estructura Flexible de Tres Pisos Bajo Excitaciones Sísmicas*, Thesis de grado presentada como requisito para optar al título Magister en Ingeniería con Énfasis en Automática, Postgrado en Ingeniería Eléctrica y Electrónica, Facultad de Ingeniería, Universidad del Valle, Cali, Colombia, Marzo de 2010.
59. R.C. van Diggelen, A.A. Kiss, A.W. Heemink. Comparison of control strategies for dividing-wall columns. *Industrial & Engineering Chemistry Research*, 49(2010), 288-307. DOI: 10.1021/ie9010673
60. L.H. Cortés, L.V. López. Control robusto de un sistema mecánico simple mediante una herramienta gráfica. *Dyna*, 77(2010), 214-223. ISSN: 0012-7353
61. P. Sudwilai, K. Oka, A. Sano, Y. Hirokawa. Vibration control with linear actuator permanent magnet system using robust control. *Proceedings of the 10th International Conference on Motion and Vibration Control (MOVIC 2010), Aug. 17-20, 2010, Tokyo, Japan, 1-11 (No. 1-203)*.
62. S. Susanto, S. Chauhan. A hybrid control approach for non-invasive medical robotic systems. *Journal of Intelligent & Robotic Systems*, 60(2010), 83-110. DOI: 10.1007/s10846-010-9407-x
63. V. Milić, Ž. Šitum, M. Essert. Robust  $H_\infty$  position control synthesis of an electro-hydraulic servo system. *ISA Transactions*, 49(2010), 535-542. <http://dx.doi.org/10.1016/j.isatra.2010.06.004>
64. L. Brezina, T. Brezina. Stewart platform model with uncertain parameters. *Solid State Phenomena*, 164(2010), 177-182. DOI: 10.4028/www.scientific.net/SSP.164.177
65. T. Orlowska-Kowalska, M. Kaminski, K. Szabat. Implementation of a sliding-mode controller with an integral function and fuzzy gain value for the electric drive with an elastic joint. *IEEE Transactions on Industrial Electronics*, 57(2010), 1309-1317. DOI: 10.1109/TIE.2009.2030823
66. I. Ngamroo, A.N. Cuk Supriyadi, S. Dechanupaprittha, M. Watanabe, Y. Mitani. Wide-area robust SMES controller design using synchronized PMUs for stabilization of interconnected power system with wind farms. *IEEE Transactions on Electrical and Electronics Engineering*, 5(2010), 428-438. DOI: 10.1002/tee.20556
67. S.M. Raafat, R. Akmeliawati, W. Martono. Different intelligent robust control schemes for precise positioning system. *Control and System Graduate Research Colloquium (IICSGRC) 2010 IEEE, Shah Alam, Malaysia. IEEE, 2010, 1-6*. DOI: 10.1109/ICSGRC.2010.5562532
68. Q. Li, W.-R. Chen, S.-K. Liu, Z.-l. Chang, X.-Q. Liu.  $\mu$  synthesis control of proton exchange membrane fuel cell generation system based on  $D$ - $K$  iteration method. *Proceedings of Power and Energy Engineering Conference (APPEEC), 28-31 March 2010, Chengdu, China, 1-4*.
69. T. Szelitzky, E.H. Dulf. Advantages of robust control for series load pulse amplitude modulation induction heating inverter. *Proceedings of the 2010 International Conference on Automation Quality and Testing Robotics (AQTR), 28-30 May 2010, Cluj-Napoca, Romania, 1-4*.
70. G. Gauthier, M. Beauchemin-Turcotte, B. Boulet. Robust design of 2<sup>nd</sup> order terminal ILC using  $\mu$ -analysis and a genetic algorithm approach. In J. Angeles et al. (Eds.), *Brain, Body and Machine. Advances in Intelligent and Soft Computing*, 83(2010), Springer, 163-174. ISBN: 978-3-642-16258-9
71. C. Spiridonescu, V. Paunoiu, A. Eporeanu, D. Nicoara. The Response Surface Method applied to deep drawing with combined restraint. *The Annals of "Dunărea de Jos", University of Galati, Fascicle V, Technologies in Machine Building, 2010, 145-149*. ISSN 1221-4566

72. S. Shah, P.S. Sensarma. Three degree of freedom robust voltage controller for instantaneous current sharing among voltage source inverters in parallel. *IEEE Transactions on Power Electronics*, 25(2010), 3003-3014. DOI: 10.1109/TPEL.2010.2050150
73. G. Gauthier, B. Boulet. Robust design of terminal ILC with an internal model control using  $\mu$ -analysis and a genetic algorithm approach. *2010 American Control Conference, June 30-July 02 2010, Baltimore, MD, USA. IEEE, 2010, 2069-2075*. ISBN: 978-1-4244-7426-4, DOI: 10.1109/ACC.2010.5531423
74. G. Gauthier, B. Boulet. Robust design of terminal iterative learning control with  $\mu$ -synthesis approach. *The 1'st Virtual Control Conference (VCC 2010), 21-23 September 2010, Aalborg, Denmark, 1-6*.
75. X.F. Zhang, Q.d. Zhang, M. Yu, K.J. Wang, P.J. Huang. The integrated robust control of interstand strip tension for tandem cold rolling mill. *Advances Material Research, vol. 145: Advances in Rolling Equipment and Technologies, 2011, 230-237*.
76. H. Nguyen-Duc, L. Dessaint, A.F. Okou, I. Kamva. A power oscillation damping control scheme based on bang-bang modulation of FACTS signals. *IEEE Transactions on Power Systems*, 25 (2010), 1918-1927. DOI: 10.1109/TPWRS.2010.2046504
77. F. Pineda, A. Chica. Linear multivariable state-feedback starting from the MPF model as recurrent algorithm to the control for canonical forms. *Proceedings of the 2010 IEEE ANDESCON Conference, 15-17 September 2010, Bogota, Columbia. IEEE, 2010, 1-5*. DOI: 10.1109/ANDESCON.2010.5633060
78. S Vachirasricirikul, I. Ngamroo. Specified-structure mixed  $H_2 / H_\infty$  control design-based robust centralized frequency stabilization of electrolyzer and microturbine in an isolated microgrid. *Proceedings of the 33rd Electrical Engineering Conference, (EECON-33), 1-3 December 2010, Chiang Mai, Thailand, 429-432*.
79. S Vachirasricirikul, I. Ngamroo. Robust load-frequency control in a smart grid with large wind power penetrations using power charge control of plug-in hybrid electric vehicles. *Proceedings of the 33rd Electrical Engineering Conference, (EECON-33), 1-3 December 2010, Chiang Mai, Thailand, 433-436*.
80. S. Tabatabaei, S. Tohidi, M.S. Sadeghi, P.S. Mirjafari. Fuzzy self-tuning gain scheduled control design for an autopilot missile. *Proceedings of the 2010 International Conference on Computer Applications and Industrial Electronics (ICCAIE 2010), December 5-7, 2010, Kuala Lumpur, Malaysia, 197-201*.
81. H. Zakeri, M.S. Sadeghi. A 2-dof multi-objective  $\mathcal{H}_\infty/\mathcal{L}_1$  robust controller design for a high purification distillation column using LMIs. *Proceedings of the 2010 International Conference on Computer Applications and Industrial Electronics (ICCAIE 2010), December 5-7, 2010, Kuala Lumpur, Malaysia, 683-687*.
82. X. Li. *Ultracapacitor Character Analysis and its Application in Unified Power Quality Conditioner as Energy Storage System*, PhD Dissertation, Faculty of the Graduate School, Missouri University of Science and Technology, Rolla, Missouri, 2010.
83. S.J.M. Steyn. *Multivariable  $H_\infty$  Control for an Active Magnetic Bearing Flywheel System*. A dissertation presented to The School of Electrical, Electronic and Computer Engineering, North-West University, Potchefstroom Campus, USA, 2010.
84. B. Liu, C.-h. Wang, W. Li. Gap metric and robust controller design in tracking systems, *Control and Decision (China)*, 25 (2010), 1713-1718.

85. W. Xiuyan, Z. Changli, L. Zongshuai. Robust H-infinity tracing control of 3-DOF helicopter model. *2010 International Conference on Measuring technology and Mechatronics Automation (ICMTMA), 13-14 March 2010, Changsha City, China. IEEE, 2010, 279-282.* ISBN: 978-1-4244-5001-5, DOI: 10.1109/ICMTMA.2010.613
86. F.M. Tuaimah, I.K. Ibraheem. Robust  $H_\infty$  controller design for hydro turbines governor. *2nd Regional Conference for Engineering Sciences, College of Engineering, 1-2 December 2010, Al-Nahrain University, Iraque, Part 1, 75-84.*
87. B. Ulutas, E.J. Park, A. Suleman. Distributed and centralized  $H_\infty$  control of large segmented telescopes. *Proceedings of the ASME International Mechanical Engineering Congress and Exposition (IMECE), 12-18 November 2010, Vancouver, Canada. American Society of Mechanical Engineers, 2012, vol. 8, parts A and B, 1129-1136.* ISBN: 978-0-7918-4445-8
88. S. Vachirasricirikul, I. Ngamroo. Robust controller design of heat pump and plug-in hybrid electric vehicle for frequency control in a smart microgrid based on specified-structure mixed  $H_2/H_\infty$  control technique. *Applied Energy, 88(2011), 3860–3868.*
89. M.I. Solihin, R. Akmeliawati. Robust control design based on differential evolution for two-mass system. *Proceeding of the International Conference on Advanced Science, Engineering and Information Technology 2011, Hotel Equatorial Bangi-Putrajaya, Malaysia, 14 - 15 January 2011, 436-440.* (ISBN 978-983-42366-4-9)
90. P.-z. Liu, Z.-q. Bai, J.-h. Wang. Robust controller design of small-scale unmanned helicopter. *International Journal of Modelling, Identification and Control, 12(2011), 17-21.* ISSN: 1746-6172
91. C.S. Ali Nandar, I. Ngamroo, S. Dechanupaprittha, M. Watanabe, Y. Mitani. GPS synchronized phaser measurement units-based wide area robust PSS parameter optimization. *European Transactions on Electrical Power, 21(2011), 345-362.*
92. L. Kovács, B. Kulsár, A. György, Z. Benyó. Robust servo control of a novel type 1 diabetic model. *Optimal Control Applications and Methods, 32(2011), 215-238.*
93. J.A. Fernández Pierna, F. Chauchard, S. Preys, J.M. Roger, O. Galtier, V. Baeten, P. Dardenne. How to build a robust model against perturbation factors with only a few reference values: A chemometric challenge at ‘Chimiomtrie 2007’. *Chemometrics and Intelligent Laboratory Systems, 106(2011), 152-159.*
94. A. Barakat, S. Tnani, G. Champenois, E. Mouni. A new approach for synchronous generator terminal voltage control – Comparison with a standard industrial controller. *Electric Power Systems Research, 81(2011), 1592-1601.*
95. J. Crespo, J. Aranda. Eigenstructure assignment-based controllers applied to flexible spacecraft. *Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering, 225(2011), 709-720.*
96. G. Barbaraci, G.V. Mariotti. Influence on the dynamic behavior of full car equipped by magnetorheological damper via switch on/off and  $h_\infty$  controller. *Proceedings of the 23rd JUMV International Automotive Conference SCIENCE AND MOTOR VEHICLES, Belgrade, 19 - 21 April 2011, paper AETT07, 1-16.*
97. I.B. Tijani, R. Akmeliawati, A. Legowo, M. Iwan, A.G.A. Muthalif. Robust H-infinity controller synthesis using multi-objectives differential evolution algorithm (MODE) for two-mass-spring system. *Proceedings of the 4th International Conference on Modeling, Simulation and Applied Optimization (ICMSAO), 2011, Kuala Lumpur, Malaysia, 19-21 April 2011, 1-7.*

98. Y. Wang, K. Nam, H. Fujimoto, Y. Hori. Robust roll and yaw integrated control using 4 wheel steering based on yaw moment and lateral force observers. *Proceedings of the IIC-11, 2011, paper 138, 1-6*. H.Fujimoto Lab., The University of Tokyo.  
<http://fujilab.k.u-tokyo.ac.jp/papers/2011/yafeiIIC11.pdf>
99. S.M. Raafat, R. Akmeliawati. Bounded constrained optimization of performance weighting function for precise robust positioning control System. *Proceedings of the 4th International Conference on Mechatronics (ICOM), 17-19 May 2011, Kuala Lumpur, Malaysia, 1-7*.
100. W. Zhang, S. Gao, D. Gu. No-weight design of  $H_2$  controllers for square plants. *IET Control Theory and Applications*, 5(2011), 785-794. ISSN: 1751-8644
101. L. Pohl, P. Blaha. Linear parameter varying approach to robust control of a permanent magnet synchronous motor. *15th International Conference on Intelligent Engineering Systems INES 2011, June 23-25, 2011, Poprad, Slovakia, IEEE, 2011, 287-291*.
102. A. Baniassadi, A. H. D. Markazi. Min-max feedback control of gas turbine including parametric uncertainty. *Proceedings of the 2011 International Conference on System Science and Engineering ICSSE 2011, June 2011, Macau, China, IEEE, 2011, 627-631*.
103. R.C. Luo, H.B. Huang, C.Y. Yi, Y.W. Perng. Adaptive Impedance Control for Safe Robot Manipulator. *Proceedings of the 8th World Congress on Intelligent Control and Automation, June 21-25, 2011, Taipei, Taiwan, IEEE, 2011, 1146-1151*.
104. A. Barakat, S. Tnani, G. Champenois, E. Mouni. Monovariaible and multivariable voltage regulator design for a synchronous generator modeled with fixed and variable loads. *IEEE Transactions on Energy Conversion*, 26(2011), 811-821. DOI: 10.1109/TEC.2011.2126045
105. L. Kovács, P. Szalay, B. Benyó, J.G. Chase. Robust tight glycaemic control of ICU patients. *Preprints of the 18th IFAC World Congress, Milano (Italy), August 28 - September 2, 2011, 4995-5000*.
106. W. Gawronski. *Design and Performance of the  $H_\infty$  Controller for the Beam-Waveguide Antennas*. IPN Progress Report 42-184, Jet Propulsion Laboratory, California Institute of Technology, 2011.
107. D.Y. Lana, S. Patra, A. Lanzon. A parameterization of parahermitian matrix functions and its application to a state-space solution for  $\mu$ -analysis. *Systems and Control Letters*, 60(2011), 798-806.
108. X. Zhang, Q. Zhang. Robust control of strip tension for tandem cold rolling mill. *Proceedings of the 30th Chinese Control Conference, July 22-24, 2011, Yantai, China, 2390-2393*.
109. R. Eide, H. Reza Karimi. Control Design Methodologies for Vibration Mitigation on Wind Turbine Systems. In F. Beltran-Carbajal (Ed.), *Vibration Analysis and Control - New Trends and Developments*, InTech, Rijeka, Croatia, 217-242, 2011. ISBN: 978-953-307-433-7
110. C.S. Ali Nandar, T. Hashiguchi, T. Goda. Robust PI-based frequency control of isolated wind-diesel power system with coordinated governor, pitch and battery controller, *IEEE Transactions on Electronics, Information and Systems (Japan)*, 131(2011), 1679-1687. ISSN: 0385-4221
111. A. Barakat, S. Tnani, G. Champenois, E. Mouni. Association of a multivariable  $H_\infty$  voltage controller with a thyristor excitation structure supplied by a WFSM. *Proceedings of the 2011 International Conference on Power Engineering, Energy and Electrical Drives POWERENG 2011, May 11-13 2011, Torremolinos (Málaga), Spain, IEEE, 2011, pp. 1-6*.
112. K. Zavari, H. Khatibi, V.J. Majd, G. Pipeleers, J. Swevers. Fixed-order robust controller design with time-domain constraints. *Proceedings of the 2011 American Control Conference, June 29 - July 01, 2011, San Francisco, CA, pp. 3698-3703*.



113. L.R. Douat, I. Queinnec, G. Garcia, M. Michelin, F. Pierrot.  $\mathcal{H}_\infty$  control applied to the vibration minimization of the parallel robot Par2. *Proceedings of the 2011 IEEE International Conference on Control Applications (CCA), Part of 2011 IEEE Multi-Conference on Systems and Control, September 28-30, 2011, Denver, CO, IEEE, 2011, pp. 947-955.*
114. S.-X. Fan, R. Nagamune, D.-P. Fan. Double-loop robust tracking control for micro machine tools. *Science China Technological Sciences*, 54(2011), 3054-3063.
115. I. Maciejewski, T. Krzyżyński. Control design of semi-active seat suspension systems. *Journal of Theoretical and Applied Mechanics (Warsaw)*, 49(2011), 1151-1168.
116. A.L. Morales, J.A. Rongong, N.D. Sims. A fuzzy finite element method programmed in MATLAB for the analysis of uncertain control systems of structures. In Ionescu C.D. (Ed.) *MATLAB - A Ubiquitous Tool for the Practical Engineer*, InTech, 2011, 291-304. ISBN: 978-953-307-907-3
117. V. Ten. Robust stabilization by additional equilibrium. In Mueller A. (Ed.) *Recent Advances in Robust Control - Novel Approaches and Design*, InTech, 2011, 3-20. ISBN 978-953-307-339-2
118. H. Bouzari, M. Šramek, G. Mistelbauer, E. Bouzari. Robust adaptive wavelet neural network control of buck converters. In Mueller A. (Ed.) *Recent Advances in Robust Control - Novel Approaches and Design*, InTech, 2011, 115-138. ISBN 978-953-307-339-2
119. R.P. Jastrzebski, A. Smirnov, O. Pyrhönen, A.K. Pilat. Discussion on robust control applied to active magnetic bearing rotor system. In Bartoszewicz A. (Ed.), *Challenges and Paradigms in Applied Robust Control*, InTech, 2011, 207-232. ISBN 978-953-307-338-5
120. J. Whidborne. Introduction to Feedback. *Advanced Instability Methods Education (AIM-ED) International Graduate School in Flow Stability, Transition and Control, August 22-27, 2011, Cambridge University, U.K., 1-25.*
121. А.В. Борисевич. Теория автоматического управления: элементарное введение с применением MATLAB. Изд-во Санкт-Петербургского Государственного Политехнического университета, СПб., 2011.
122. I. Maciejewski. Control system design of active seat suspensions. *Journal of Sound and Vibration*, 331 (2012) 1291-1309.
123. S.A. Brodsky, H.O. Aro. Application of robust synthesis methodology for sounding rocket attitude stabilization. *Proceedings of the 5th International Conference on Recent Advances in Space Technologies (RAST), 9-11 June 2011, Istanbul, IEEE, 2011, 741-746.*
124. E. Rafajłowicz, W. Rafajłowicz. (n+r)D systems and their control with reduced sensitivity to parametric uncertainties. *Proceedings of the 7th International Workshop on Multidimensional (nD) Systems (nDs), 5-7 September 2011, Poitiers, France, 1-4.*
125. S.-h. Fan, D.-p.Fan, H.-j. Hong, Z.-y. Zhang. Robust tracking control for micro machine tools with load uncertainties. *Journal of Central South University of Technology (Springer)*, 19(2012), 117-127.
126. I. Inoan, M. Abrudean, T. Szelitsky. Robust  $\mathcal{H}_\infty$  position control of an unloading machine from a rotary hearth furnace. *Scientific Bulletin of the "Petru Maior" University of Târgu Mureș*, 8(2011), 38-43.
127. L.R. Douat. *Identification et commande pour l'atténuation de vibrations du robot parallèle Par2*, Thèse en vue de l'obtention du Doctorat de l'Université de Toulouse, Toulouse, France, 2011. ISSN: 1841-9267
128. B.K. Atmaja, E. Joelianto. Surface control design of rocket using MIMO PID robust integral backstepping. *Proceedings of the 2011 2nd International Conference on Instrumentation, Control and Automation, 15-17 November 2011, Bandung, Indonesia, IEEE 2011, 370-377.*

129. P. Sudwilai, K. Oka, Y. Hirokawa. Frequency response of vibration control with linear actuator and permanent magnet. *Proceedings of the 20th Magnetodynamics (MAGDA) Conference in Pacific Asia, November 14-16, 2011, Kaohsiung, Taiwan, 494-499.*
130. T. Szelitzky, I. Inoan, D. C. Dumitrache. Advantages of robust control for series load frequency controlled induction heating inverters. *Control Engineering and Applied Informatics, 13(2011), 62-68.* ISSN: 1454-8658
131. G. Avanzini, E.A. Minisci. Evolutionary design of a full-envelope full-authority flight control system for an unstable high-performance aircraft. *Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering, 225 (2011), 1065-1080.*
132. O.A. Sushchenko, I.V. Chaplay. Synthesis of robust controller for stabilizing system of informational-measuring devices. *Вісник Національного Авіаційного Університету, Науковий журнал, Київ, 3(48), 2011, 36-42.* ISSN 1813-1166
133. Tumiran, C.S. Ali Nandar, Sarjiya. Power oscillation damping control using robust coordinated smart devices. *TELEKOMNIKA, Indonesian Journal of Electrical Engineering, 9 (2011), 65-72.* ISSN: 1693-6930
134. L. Březina, T. Březina. H-infinity controller design for a DC motor model with uncertain parameters. *Engineering Mechanics, 18(2011), 271-279.*
135. S.S. Chughtai, H. Werner. A hybrid approach to the synthesis of simply structured robust and gain-scheduled controllers. *Applied Soft Computing, 11 (2011), 4078-4086.*
136. I.A. Mohammed, R.A. Maher, I.K. Ibraheem. Robust controller design for load frequency control in power systems using state-space approach. *Journal of Engineering, 17(2011), 265-278.* ISSN: 2314-4912
137. I. Ngamroo. Augmentation of electrolyzer control effect by PSS for microgrid stabilization using PID-based mixed  $H_2/H_\infty$  control. *International Review of Electrical Engineering-IREE, 6(2011), 3073-3080.*
138. T. Szelitzky, A.O. Neaga, M. Tulbure, C. Filip, R. Both.  $H_2$  robust control of a series load induction heating inverter with Kalman filter state estimator. *The 5th Edition of the Interdisciplinarity in Engineering International Conference "Petru Maior", University of Tirgu Mures, Romania, 2011, 24-29.*
139. I. Inoan, M. Abrudean, T. Szelitzky. Unloading arm horizontal positioning system control using robust  $H_\infty$  approach. *The 5th Edition of the Interdisciplinarity in Engineering International Conference "Petru Maior", University of Tirgu Mures, Romania, 2011, 54-59.*
140. A. Barakat, S. Tnani, G. Champenois, E. Mouni. A SISO  $H_\infty$  voltage controller associated with a PMG-thyristor excitation structure. *20th IEEE International Symposium on Industrial Electronics (ISIE), 27-30 June 2011, Gdansk, Poland. IEEE, 2011.* ISBN: 978-1-4244-9312-8
141. K. Szabat, P. Serkies, M. Cychowski. Application of the MPC to the robust control of the two-mass drive system. *20th IEEE International Symposium on Industrial Electronics (ISIE), 27-30 June 2011, Gdansk, Poland. IEEE, 2011.* ISBN: 978-1-4244-9312-8, DOI: 10.1109/ISIE.2011.5984448
142. X.O. Аро. Применение методов робастного управления для стабилизации метеорологической ракеты. *Известия Вузов. Приборостроение, 54(2011), 57-61.*
143. Y.I. Baez Rivera. *Control of Multigenerators for the All-Electric Ship*, PhD Thesis, Department of Electrical and Computer Engineering, Mississippi State University, Mississippi, 2011.
144. A.L. Morales, J.A. Rongong, N.D. Sims. A finite element method for active vibration control of uncertain structures. *Mechanical Systems and Signal Processing, 32 (2012), 79-93.*

145. Z. Xiaofeng, Z. Qingdong. Robust control of strip thickness for cold rolling mill. *Informatics in Control, Automation and Robotics, Lecture Notes in Electrical Engineering, Vol. 133, 2012, Part1*, 777-785.
146. S. Davari, D. Arab Khaburi, F. Wang, K. Ralph. Using full order and reduced order observers for robust sensorless predictive torque control of induction motors. *IEEE Transactions on Power Electronics*, 27(2012), 3424-3433. DOI:10.1109/TPEL.2011.2179812
147. R. Kumar. Active vibration control of beams by combining precompressed layer damping and ACLD treatment: Performance comparison of various robust control techniques. *Journal of Vibration and Acoustics - Transactions of the ASME*, 134 (2012). DOI: 10.1115/1.4004997
148. K. Szabat, T. Orłowska-Kowalska. Application of the Kalman filters to the high performance drive system with elastic coupling. *IEEE Transactions on Industrial Electronics*, 59(2012), 4226-4235. ISSN: 1319-8025, DOI:10.1109/TIE.2012.2183836
149. R.A. Maher, I.A. Mohammed, I.K. Ibraheem. State-Space based  $\mathcal{H}_\infty$  robust controller design for boiler-turbine system. *Arabian Journal for Science and Engineering*, 37(2012), 1767-1776. DOI: 10.1007/s13369-012-0275-5
150. C.S. Ali Nandar, T. Hashiguchi, T. Goda, T. Tsuji. Design of a coordinated robust controller of SMES and blade pitch for smart-grid power systems, *IEEJ Transactions on Electrical and Electronic Engineering (Japan)*, 7(2012), 355-362, ISSN: 1931-4973, DOI: 10.1002/tee.21740
151. J. Ahmadi, A. Khaki-Sedigh, A. Ohadi. Robustification of input redundant feedback systems using robust actuator weighting in the control allocation problem. *International Journal of Control*, 85(2012), 1380-1400, DOI: 10.1080/00207179.2012.686632
152. О.А. Сущенко.  $H_\infty$ -синтез системи стабілізації інформаційно-вимірювальних пристроїв на рухомій основі. *Електроніка та системи управління*, №1(31), 2012, 50-56. ISSN 1990-5548
153. I. Ngamroo. Robust coordinated control of electrolyzer and PSS stabilization of microgrid based on PID-based mixed  $H_2/H_\infty$  control. *Renewable Energy*, 45(2012), 16-23.
154. R.R. Rewagad, A.A. Kiss. Dynamic optimization of a dividing-wall column using model predictive control. *Chemical Engineering Science*, 68(2012), 132-142.
155. B. Ulutas, D. Kerley, J. Dunn, A. Suleman, E.J. Park. Distributed  $H_\infty$  control of dynamically coupled segmented telescope mirrors: Design and simulation. *Mechatronics*, 22(2012), 121-135.
156. C.Z. Zhao, R. Xu, J. Xiong, X.R. Lin. Sensitivity function based active disturbance rejection control for the plant with unknown order and uncertain relative degree. *Advanced Materials Research, Volumes 542 - 543, 2012, 223-227*. ISSN: 1662-8985
157. B. Alt, E. Hermann. Robust surge avoidance control for a low pressure compressor of a turbojet engine. *Proceedings of the 2012 International Conference on Unmanned Aircraft Systems (ICUAS'12), June 12-15, 2012, Philadelphia, PA, 8 pp.*
158. V. Azimi, M.A. Nekoui, A. Fakharian. Robust multi-objective  $H_2/H_\infty$  tracking control based on the Takagi-Sugeno fuzzy model for a class of nonlinear uncertain drive systems. *Proceedings of the Institution of Mechanical Engineers, Part I: Journal of Systems and Control Engineering*, 226 (2012), 1107-1118. DOI: 10.1177/0959651812443925.
159. S. Coman, V. Comnac, Cr. Boldisor. Robust control of a permanent magnet synchronous machine. *Proceedings of the 13th International Conference on Optimization of Electrical and Electronic Equipment (Optim) 24-26 May 2012, Brasov, Romania, IEEE, 2012, 594-599.*
160. D. Kaur, L. Dewan. Identification of delayed system using instrumental variable method. *Journal of Control Theory and Applications*, 10 (2012), 380-384. ISSN: 2095-6983, DOI: 10.1007/s11768-012-0289-2

161. S. Vachirasricirikul, I. Ngamroo. Robust controller design of microturbine and electrolyzer for frequency stabilization in a microgrid system with plug-in hybrid electric vehicles. *Electrical Power and Energy Systems*, 43 (2012) 804–811.
162. B. Sari, M.F. Benkhoris, J.C. Le Claire, B. Rabhi. Robust  $H_\infty$  output feedback control design applied to uninterruptible power supplies. *Proceedings of the 2012 IEEE International Symposium on Industrial Electronics (ISIE)*, 28-31 May 2012, Hangzhou, China, IEEE, 2012, 490-495. DOI: 10.1109/ISIE.2012.6237136
163. B. Sari, A. Dieng, M.F. Benkhoris, M.A. Ahmed. A new robust torque control of a five phase permanent magnet synchronous machine. *2012 15th International Power Electronics and Motion Control Conference (EPE/PEMC)*, 4-6 Sept. 2012, Novi Sad, Serbia. IEEE, 2012, LS1c.5-1 - LS1c.5-6. ISBN: 978-1-4673-1970-6, DOI: 10.1109/EPEPMC.2012.6397391
164. J. Awrejcewicz, Z. Koruba. Gyroscopic control in self-guidance systems of flying objects. Chapter 5 of *Classical Mechanics, Advances in Mechanics and Mathematics, Volume 30*, Springer, 2012, 209-250. ISBN: 978-1-4614-3977-6, DOI: 10.1007/978-1-4614-3978-3\_5
165. Z. Dang, Y. Zhang. Formation control using  $\mu$ -synthesis for Inner-Formation Gravity Measurement Satellite System. *Advances in Space Research*, 49(2012), 1487-1505.
166. M.J. Hudson, P. Reynolds. Implementation considerations for active vibration control in the design of floor structures. *Engineering Structures*, 44(2012), 334-358.
167. M. Sedraoui, D. Boudjehem. Robust fractional order controller based on improved particle swarm optimization algorithm for the wind turbine equipped with a doubly fed asynchronous machine. *Proceedings of the Institution of Mechanical Engineers, Part I: Journal of Systems and Control Engineering*, 2012. DOI: 10.1177/0959651812452480
168. P.L.T. Duong, M. Lee. Robust PID controller design for processes with stochastic parametric uncertainties. *Journal of Process Control*, 22(2012), 1559-1566.  
<http://dx.doi.org/10.1016/j.jprocont.2012.06.020>
169. T. Szelitzky, E.-H. Dulf.  $H_\infty$  control of an induction heating inverter. *Advances in Intelligent Control Systems and Computer Science, Advances in Intelligent Systems and Computing*, Springer-Verlag, Berlin, Volume 187, 2013, 235-250 [http://dx.doi.org/10.1007/978-3-642-32548-9\\_17](http://dx.doi.org/10.1007/978-3-642-32548-9_17)
170. S.M. Raafat, R. Akmeliawati, I. Abdulljabaar. Robust  $H_\infty$  controller for high precision positioning system, design, analysis, and implementation. *Intelligent Control and Automation*, 3(2012), 262-273. <http://dx.doi.org/10.4236/ica.2012.33030>. Published Online August 2012 (<http://www.SciRP.org/journal/ica>)
171. Y. Yang, K. Zhou, W. Lu. Robust repetitive control scheme for three-phase constant-voltage constant-frequency pulse-width modulated inverters. *IET Power Electronics*, 5 (2012), 669-677. ISSN: 1755-4535, DOI: 10.1049/iet-pel.2011.0259
172. B. Alt, E. Hermann. Robust surge avoidance control for a low pressure compressor of a turbojet engine. *Journal of Intelligent & Robotic Systems*, 2012. <http://dx.doi.org/10.1007/s10846-012-9700-y>
173. O. Sushchenko, I. Chaplay. Futures of the mixed sensitivity  $H_\infty$ -optimization for the two-degree-of-freedom controller. *Вісник Національного Авіаційного Університету, Науковий журнал*, Київ, 2(51), 2012, 35-41. ISSN 1813-1166
174. C.E.D. Riboldi. *Advanced Control Laws for Variable-Speed Wind Turbines and Supporting Enabling Technologies*. PhD Dissertation, Department of Aerospace Engineering, Politecnico di Milano, 2012.

175. S. Rajala.  *$H_\infty$  Control Design of an Active Vehicle Suspension System*. Master of Science Thesis, Tampere University of Technology, 2012.
176. A. Barakat, S. Tnani, G. Champenois, E. Mouni. Output voltage control of synchronous generator using diode and thyristor excitation structures combined with multivariable  $H_\infty$  controllers. *IET Electric Power Applications*, 6(2012), 203-213. ISSN: 1751-8660, DOI: 10.1049/iet-epa.2011.0013
177. S. Vachirasricirikul, I. Ngamroo. Heuristic optimization based-fixed structure robust  $H_\infty$  loop shaping controller design with automatic weights selection of controllable distributed generations for microgrid stabilization. *International Review of Electrical Engineering (IREE)*, 7(2012), 4146-4154. ISSN: 1827-6660
178. О.А. Сущенко. Дослідження методів  $H_\infty$ -синтезу систем стабілізації інформаційно-вимірювальних пристроїв. *Вісник Національного Авіаційного Університету, Науковий журнал, Київ, 3(52), 2012, 64-68*. ISSN 1813-1166
179. A. Baniassadi, A.H.D. Markazi, M. Karami. Robust control of a gas turbine with Wiener model uncertainty. *Indian Journal of Science and Technology*, 5(2012), 3584-3592. ISSN:0974-6846
180. J. Kasać. *Opća teorija sustava*. Sveučilište u Zagrebu, Fakultet strojarstva i brodogradnje, Zagreb, 156 pp., 2007.
181. H.I. Ali, S.B.M. Noor, S.M. Bashi, M.H. Marhaban. Robust controller design for positioning a pneumatic servo actuator. The Second International Conference on Control, Instrumentation and Mechatronic Engineering (CIM09), Malacca, Malaysia, June 2-3, 2009, 1-7.
182. M. Lieungh. *Stabilizing Slug Control Using Subsea Choke Valve*. Thesis submitted for Master of Science in Engineering Cybernetics, Department of Engineering Cybernetics, Norwegian University of Science and Technology, Trondheim, Norway, June 2012.
183. A. Fakharian, V. Azimi. Robust mixed-sensitivity  $H_\infty$  control for a class of MIMO uncertain nonlinear IPM synchronous motor via T-S fuzzy model. *17th International Conference on Methods and Models in Automation and Robotics (MMAR), 27-30 August, Miedziszdroje, Poland. IEEE, 2012, 546-551*. ISBN: 978-1-4673-2124-2
184. J. Fang, S. Zheng, B. Han. AMB vibration control for structural resonance of double-gimbal control moment gyro with high-speed magnetically suspended rotor. *IEEE/ASME Transactions on Mechatronics*, 18(2013), 32-43. <http://dx.doi.org/10.1109/TMECH.2011.2161877>
185. Ali Nandar CS, Robust PI control of smart controllable load for frequency stabilization of microgrid power system, *Renewable Energy* 56(2013), 16-23. <http://dx.doi.org/10.1016/j.renene.2012.10.032>
186. N. Khan. *Linear Prediction Approaches to Compensation of Missing Measurements in Kalman Filtering*, PhD thesis, Department of Engineering, University of Leicester, Leicester, UK, 2012.
187. A. Barakat, S. Tnani, G. Champenois, E. Mouni. Direct control strategy of synchronous generators using DC/DC converter. *Proceedings of the 38th Annual Conference on IEEE Industrial Electronics Society IECON 2012, 25-28 October 2012, Montreal, QC, Canada, 1737-1741*. ISBN: 978-1-4673-2419-9, DOI: 10.1109/IECON.2012.6388712
188. S. Boudria, G. Gauthier. High order robust Terminal Iterative Learning Control design using Genetic Algorithm. *Proceedings of the 38th Annual Conference on IEEE Industrial Electronics Society IECON 2012, 25-28 October 2012, Montreal, QC, Canada, 2313-2318*. ISBN: 978-1-4673-2419-9, DOI: 10.1109/IECON.2012.6388707
189. T. Baitenov, Zh. Kanbaev, V. Ten. *Approach to design of robust control systems in the class of structurally stable maps with example of simplest walking robot*. Preprint, Евразийский национальный университет им. Л.Н. Гумилева, Astana, Kazakhstan, 2012.

190. I. Ngamroo. Specified structure mixed  $H_2/H_\infty$  control-based robust frequency stabilization in a smart grid by plug-in hybrid electric vehicles. *International Journal of Innovative Computing, Information and Control*, 9 (2013), 81-97. ISSN 1349-4198
191. A.X. Caetano de Almeida, A.A. Filho. Algorithmic design for a robust control benchmark problem. *ABCM Symposium Series in Mechatronics*, 5 (2012), 494-503.
192. Z. Wu, A. Iqbal, F.B. Amara. Centralized Optimal Controller Design. In Z. Wu, A. Iqbal, F.B. Amara. *Modelling and Control of Magnetic Fluid Deformable Mirrors for Adaptive Optics Systems*, Springer, 2013, 227-271 ISBN: 978-3-642-32228-0 (Print) 978-3-642-32229-7 (Online)
193. A. Lari, A. Khosravi. An evolutionary approach to design practical  $\mu$  synthesis controllers. *International Journal of Control, Automation, and Systems*, 11 (2013), 167-174. ISSN: 1598-6446, DOI 10.1007/s12555-012-0181-3
194. О.А. Сущенко. Структурний синтез комбінованої робастної системи управління з урахуванням зовнішніх координатних збурень. *Вісник Національного Авіаційного Університету, Науковий журнал, Київ*, 4(53), 2012, 32-36. ISSN 1813-1166
195. M.S. Mahmoud, Y. Xia. *Applied Control Systems Design*. Springer-Verlag, London, 2012. ISBN 978-1-4471-2879-3, e-ISBN 978-1-4471-2879-3
196. V. Dugan, R. Medina, C.M. Ionescu, R. De Keyser. On the application of model-order reduction algorithms. *2012 16th International Conference on System Theory, Control and Computing (ICSTCC), 12-14 Oct. 2012, Sinaia, Romania. IEEE, 2012, 1-6*. ISBN: 978-1-4673-4534-7
197. C. Copot, C.M. Ionescu, R. De Keyser, V. Dugan. Hankel-norm approximation method applied for high order model reduction to robust controller synthesis. *The Annals of "Dunărea de Jos" University of Galati, Fascicle III, 2012, Vol. 35, No. 2, 33-40*. ISSN 1221-454X
198. F.B. Prioste. *Deteção e Controle de Oscilações Electromecânicas Usando Sistemas de Medição Fasorial Sincronizada*. Tese submetida ao Programa de Pós-Graduação em Engenharia Elétrica da Universidade Federal de Santa Catarina para a obtenção do grau de Doutor em Engenharia Elétrica. Universidade Federal de Santa Catarina, Florianópolis, Brasil, 2011.
199. A.A. Kiss. Advanced Control Strategies for DWC, in *Advanced Distillation Technologies: Design, Control and Applications*, John Wiley & Sons, Ltd, Chichester, UK, 2013. ISBN: 9781119993612, DOI: 10.1002/9781118543702.ch5
200. S.B. Chennuri, S.P. Singh, J.K. Dutt. Design, simulation and performance analysis of LQG controller for structures with parametric uncertainties using interval analysis. *Proceedings of International Conference on Noise and Vibration Engineering (ISMA2012)/International Conference on Uncertainty in Structural Dynamics (USD2012), 17-19 September 2012, Leuven, Belgium. KU Leuven, 2012, 4513-4522*.
201. Y. Yang, K. Zhou, W. Lu. Robust repetitive control scheme for three-phase constant-voltage-constant-frequency pulse-width modulated inverters. *IET Power Electronics*, 5 (2012), 669-677. ISSN: 1755-4535, DOI: 10.1049/iet-pel.2011.0259
202. A.M. Howlader, N. Urasaki, A. Yona, T. Senjyu, A.Y. Saber. Design and implement a digital  $H_\infty$  robust controller for a MW-class PMSG-based grid-interactive wind energy conversion system. *Energies*, 6(2013), 2084-2109. DOI: 10.3390/en6042084
203. L.R. Douat, I. Queinnec, G. Garcia, M. Michelin, F. Pierrot, S. Tarbouriech. Identification and vibration attenuation for the parallel robot Par2. *IEEE Transactions on Control Systems Technology* 22 (2014), 190-200. DOI : 10.1109/TCST.2013.2249515
204. T.E.M. Nordling. *Robust Inference of Gene Regulatory Networks*. Doctoral Thesis, KTH School of Electrical Engineering, Automatic Control Lab, Stockholm, Sweden, 2013. ISBN 978-91-7501-762-4

205. M. Davari, Y.A.-R.I. Mohamed. Robust multi-objective control of VSC-based DC-voltage power port in hybrid AC/DC multi-terminal micro-grids. *IEEE Transactions on Smart Grid*, 2013. DOI: 10.1109/TSG.2013.2249541
206. E. Rafajlowicz, W. Rafajlowicz. Control of linear extended nD systems with minimized sensitivity to parameter uncertainties. *Multidimensional Systems and Signal Processing*, 24(2013), 637-656. DOI 10.1007/s11045-013-0236-5
207. K. Zhang, G. Scorletti, M.N. Ichchou, F. Mieleville. Phase and gain control policies for robust active vibration control of flexible structures. *Smart Materials and Structures*, 22 (2013), 15 pp. DOI: 10.1088/0964-1726/22/7/075025
208. M.A. Darwish, H.S. Abbas. DC motor position control using discrete-time fixed-order  $H_\infty$  controllers. *Proceedings of the First International Conference on Innovative Engineering Systems (ICIES)*, 7-9 December 2012, Alexandria, Egypt, 260-265. ISBN: 978-1-4673-4440-1, DOI: 10.1109/ICIES.2012.6530880
209. S.H. Rajani, N. Usha. Performance comparison of H-infinity and LQR controllers for the pressure regulation of a hypersonic wind tunnel. *International Journal of Modern Engineering Research*, 3 (2013), 1623-1629. ISSN: 2249-6645
210. S. Jain, M. Garg, A. Swarup. Design and simulation of robust controller for flexure stage based piezo-actuated nanopositioning device. *International Journal of Control and Automation*, 6(2013), 17-28. ISSN: 2005-4297, [http://www.sersc.org/journals/IJCA/vol6\\_no2/2.pdf](http://www.sersc.org/journals/IJCA/vol6_no2/2.pdf)
211. К. А. Пупков, Н. Д. Егупов, Л. В. Колесников, Ю. Л. Лукашенко, Е. Л. Межирицкий, В. М. Никифоров, Н. А. Никифоров, А. И. Трофимов, М. А. Трофимов, Н. В. Фалдин. *Методы инженерного синтеза сложных систем управления: Аналитический аппарат, алгоритмы приложения в технике*. Издательство МГТУ им. Н. Э. Баумана, М., 2012, 416 с. ISBN 978-5-7038-3451-0
212. A. Wahyudie, T.B. Susilo, N. Noura. Robust PID controller for quad-rotor. *Journal of Unmanned System Technology*, 1(2013), 14-19. ISSN: 2287-7320
213. N. Malagutti, A. Dehghani, R.A. Kennedy. Robust control design for automatic regulation of blood pressure. *IET Control Theory & Applications*, 7(2013). ISSN: 1751-8644, DOI: 10.1049/iet-cta.2012.0254
214. O.A. Sushchenko. Optimal synthesis of electronic system for gyroscopic nautical compass stabilisation. *Proceedings of the Electronics and Nanotechnology (ELNANO), 2013 IEEE XXXIII International Scientific Conference, Kiev, Ukraine, 16-19 April 2013*, 436-439. ISBN: 978-1-4673-4669-6, DOI: 10.1109/ELNANO.2013.6552003
215. S.A. Davari, D.A. Khaburi, F. Wang, R. Kennel. Robust sensorless predictive control of induction motors with sliding mode voltage model observer. *Turkish Journal of Electrical Engineering & Computer Sciences*, 21(2013), 1-14. ISSN 1300-0632, DOI:10.3906/elk-1110-3
216. R. Mohsenipour, H. Nemati, M. Nasirian, A.K. Nia. Attitude control of a flexible satellite by using robust control design methods. *Intelligent Control and Automation*, 4(2013), 313-326. ISSN Print: 2153-0653, DOI: 10.4236/ica.2013.43037
217. W. Yuan. *Dynamic Modelling and Flight Control Methodologies for Vertical Take-Off and Landing Unmanned Aerial Vehicles*. A thesis in fulfilment of the requirements for the degree of Doctor of Philosophy, School of Mechanical and Manufacturing Engineering Faculty of Engineering, University of New South Wales, Australia, July 2013.
218. W.Z. Yu, Z.P. Chen., G. Zhuang, Z.J. Wang. Robust control design for the plasma horizontal position control on J-TEXT Tokamak. *Fusion Engineering and Design*, 88 (2013), 3021-3027. <http://dx.doi.org/10.1016/j.fusengdes.2013.07.006>

219. S. Etedali, M.R. Sohrabi, S. Tavakoli. An independent robust modal PID control approach for seismic control of buildings. *Journal of Civil Engineering and Urbanism*, 3(2013), 279-291. ISSN: 2252-0430
220. W. Al-Azzawi. *Robust Controller for Delays and Packet Dropout Avoidance in Solar-Power Wireless Network*, PhD Thesis, Faculty of Technology, De Montfort University, Leicester, UK, 2013.
221. A.N. Cuk Supriyadi, H. Takano, J. Murata, T. Goda. Adaptive robust PSS to enhance stabilization of interconnected power systems with high renewable energy penetration, *Renewable Energy* (2014), 767-774. <http://dx.doi.org/10.1016/j.renene.2013.09.044>
222. Z.-G. Song, F.-M. Li. Aeroelastic analysis and active flutter control of nonlinear lattice sandwich beams. *Nonlinear Dynamics*, 76 (2014), 57-68 DOI 10.1007/s11071-013-1110-6
223. A. Schirrer, C. Westermayer, M. Hemedi, M. Kozek. Robust lateral blended-wing-body aircraft feedback control design using a parametrized LFR model and DGK-iteration. *Progress in Flight Dynamics, GNC, and Avionics*, 6 (2013), 749-766. DOI: 10.1051/eucass/201306749
224. E.N. Reyes, M.A. Pérez, A.R. Messina. Assessing robust stability of power systems using the complex and mixed SSV. *Conference Proceedings 806: Power and Energy / 807: Intelligent Systems and Control / 808: Technology for Education and Learning (PE2013)*. Marina del Rey, USA, November 11 – 13, 2013. N. Rashidi, M.H. Hamza (Eds.), ACTA Press, 2013. ISBN (CD): 978-0-88986-961-5, DOI: 10.2316/P.2013.806-032
225. R.K. Yedavalli. *Robust Control of Uncertain Dynamic Systems. A Linear State Space Approach*. Springer, New York, 2013. ISBN 978-1-4614-9131-6, ISBN 978-1-4614-9132-3 (eBook), DOI 10.1007/978-1-4614-9132-3
226. J.B.R. Betancourt. *Complex Networks: Modeling, Simulation and Dynamical Analysis of Automated and non-Automated Chemical Processes*. Tesis o trabajo de grado presentada(o) como requisito parcial para optar al título de: Doctor en Ingenierría - Línea de Automática, Universidad Nacional de Colombia - Sede Manizales, Manizales, Colombia, 2012.
227. L. Pohl, I. Vesely, M. Graf. Real-time implementation of  $\mathcal{H}_\infty$  LPV controller for PMSM drive. *Proc. 39th Annual Conference of the IEEE Industrial Electronics Society, IECON 2013, 10-13 Nov. 2013, Vienna, Austria, 3072-3077*. ISSN: 1553-572X, doi: 10.1109/IECON.2013.6699619
228. О.Ю. Тятюшкина, С.В. Ульянов. Проектирование баз знаний робастных нечетких регуляторов в непредвиденных ситуациях управления: Продукционные правила вывода с учетом информационной оценки приращения риска. *Электронный журнал «Системный анализ в науке и образовании» Выпуск № 1, 2013*.
229. С.Н. Балюта, Т.Б. Никитина, Л.А. Копылова, М.О. Татарченко, В.В. Хоменко. Многокритериальный синтез комбинированной стохастической робастной системы совместного регулирования толщины, натяжения и петли полосы в чистовой группе широкополосного стана горячей прокатки. *Вестник НТУ "ХПИ" № 35 (1078), 2014*, ISSN 2079-0031
230. L. Dongning, L. Yiwu. Singular formalism and admissible control of spacecraft with rotating flexible solar array. *Chinese Journal of Aeronautics*, 27 (2014), 136-144. <http://dx.doi.org/10.1016/j.cja.2013.12.010>
231. L. Kovács, A. Szeles, J. Sápi, D.A. Drexler, I. Rudas, I. Harmati, Z. Sápi. Model-based angiogenic inhibition of tumor growth using modern robust control method. *Computer Methods and Programs in Biomedicine*, 2014. <http://dx.doi.org/10.1016/j.cmpb.2014.01.002>
232. M.F. Nasution, A. Triwiyatno, B. Setiyono. Desain sistem kontrol robust PID  $H_\infty$  control dengan optimasi genetic algorithm untuk attitude control quadrotor UAV. *Transient*, 2 (2013), 981-988. ISSN: 2302-9927



233. S. Sumsurooah, M. Odavic, D. Boroyevich. Modelling and robust stability analysis of uncertain systems. *Proceedings of the 2013 Grand Challenges on Modeling and Simulation Conference GCMS'13, Summer Simulation Multiconference SummerSim'13, Toronto, Canada, July 07 - 10, 2013, Article No. 13. Society for Modeling & Simulation International, Vista, CA, 2013.* ISBN: 978-1-62748-275-2
234. H.K. Alaei, A. Yazdizadeh. Robust flow controller design and analysis for a chemical process. *Transactions of the Institute of Measurement and Control, 2014.* doi: 10.1177/0142331213509831
235. X. Dai, Y. Zou, Y. Sun. Uncertainty modeling and robust control for LCL resonant inductive power transfer system. *Journal of Power Electronics, 13 (2013), 814-828.*  
DOI: 10.6113/JPE.2013.13.5.814
236. T. Wang. *Commande robuste pour une gestion énergétique fonction de l'état de santé de la batterie au sein des véhicules hybrides.* Thèse pour obtenir le grade de Docteur L'Université de Grenoble, 23.10.2013, Grenoble, France.
237. F.-h. Liu, X.-p. Ma, Z.-j. Zhang.  $\mu$ -method for robust stability of active aeroelastic wing with multiple control surfaces. In: *W. Wang (Ed.), Mechatronic and Automatic Control Systems, Lecture Notes in Electrical Engineering, vol. 237, Springer, Heidelberg, 2014, Part IV, 617-628.* ISBN: 978-3-319-01272-8, DOI: 10.1007/978-3-319-01273-5\_69
238. S. Siddik, A.S. Vinayagam, R. Gopinath. Load frequency control of a hybrid wind diesel system using fuzzy logic control. *International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering, 3(2014), 82-87.* ISSN 2320-3765
239. А.М. Шарипова. *Активное управление коллективными инвестициями на основе оценок робастности.* Диссертация на соискание ученой степени кандидата технических наук, Уфимский государственный авиационный технический университет, Уфа, 2014.
240. K. Zhang. *Mechatronic Design under Uncertainties.* Thèse de Doctorat présentée pour obtenir le titre de Docteur de l'École Centrale de Lyon, Lyon, France, 2013.
241. V. Azimi, M.B. Menhaj, A. Fakharian. Robust  $H_2/H_\infty$  control for a robot manipulator fuzzy system. *2013 13th Iranian Conference on Fuzzy Systems (IFSC), 27-29 August 2013, Qazvin, Iran. IEEE, 2013.* ISBN: 978-1-4799-1227-8, DOI: 10.1109/IFSC.2013.6675650
242. O.A. Sushchenko, A.A. Tunik. Robust stabilization of UAV equipment. *IEEE 2nd International Conference on Actual Problems of Unmanned Air Vehicles Developments (APUAVD), 15-17 October 2013, Kyiv, Ukraine. IEEE, 2013, 176-180.* ISBN: 978-1-4799-3306-8,  
DOI: 10.1109/APUAVD.2013.6705318
243. M.-Y. Chen. *Analytic Function Methods for Nonparametric Control.* PhD Thesis, Department of Engineering, University of Liverpool, Liverpool, UK, 2013.
244. O.A. Sushchenko. Design of robust controller for UAV information-measuring devices stabilization system. *Electronics and Control Systems, 37(2013), 58-64.* ISSN 1990-5548
245. O. A. Sushchenko. Features of computer-aided design of robust discrete controllers for information-measuring devices stabilization systems. *Electronics and Control Systems, 38(2013), 79-85.* ISSN 1990-5548
246. S. Yun. *Model-Based Design of Vehicle Stability Control System for a Micro Electric Vehicle with In-wheel Motors,* Master's Dissertation, Graduate School of System Design and Management, Keio University, Tokyo, Japan, 2014.
247. M. Abouzlam. *Optimisation d'un procédé de traitement des eaux par ozonation catalytique.* These pour l'obtention du grade de Docteur de l'Universite de Poitiers, Poitiers, France, 2014.

248. S. Vachirasricirikul, I. Ngamroo. Robust LFC in a smart grid with wind power penetration by coordinated V2G control and frequency controller. *IEEE Transactions on Smart Grid*, 5 (2014), 371-380. DOI: 10.1109/TSG.2013.2264921
249. О.А. Сущенко. Робастная структурная оптимизация системы стабилизации информационно-измерительных устройств на подвижном основании. *Глобальный научный потенциал, научно-практический журнал*, 35 (2014), 71-76. ISSN 1997-9355
250. О.А. Сущенко. Проектирование робастной комбинированной системы стабилизации и управления информационно-измерительных устройств на подвижном основании. *Вестник Иркутского государственного технического университета*, № 2 (85), 2014, 26-32.
251. O. Sushchenko. Design of robust triaxial systems for stabilization of airborne observation equipment. *Proceedings of the National Aviation University, Kiev, Ukraine*, 59 (2014), 28-36. ISSN 1813-1166
252. O.A. Sushchenko. Synthesis of two-degree-of-freedom system for stabilization of information-measuring devices on moving base. *2014 IEEE 3rd International Conference on Methods and Systems of Navigation and Motion Control (MSNMC), Kiev, Ukraine, 14-17 Oct. 2014*, 150-154. ISBN: 978-1-4799-6578-6, DOI: 10.1109/MSNMC.2014.6979756
253. S. Kr. Choudhari. Robust feedback control analysis of magnetic levitation system. *WSEAS Transactions on Systems*, 13 (2014), 285-291. E-ISSN: 2224-2678
254. E.H. Dulf, R. Both, C.L. Muresan. Active disturbance rejection controller for a separation column. *IEEE International Conference on Automation, Quality and Testing, Robotics, 22-24 May 2014, Cluj-Napoca, Romania, IEEE, 2014*, 6 pp.. ISBN 978-1-4799-3731-8, DOI: 10.1109/AQTR.2014.6857906
255. I. Maciejewski, T. Krzyzynski, L. Meyer. Control system synthesis of seat suspensions used for protection of working machine operators. *Vehicle System Dynamics: International Journal of Vehicle Mechanics and Mobility*, 2014. ISSN: 0042-3114, DOI:10.1080/00423114.2014.941883
256. О. А. Сущенко, В. Н. Азарсков. Проектирование робастных систем стабилизации оборудования беспилотных летательных аппаратов. *Вестник Самарского государственного аэрокосмического университета*, 43 (2014), 80-90.
257. T. Peni, Z. Szabo, J. Bokor. Stable  $\mathcal{H}_\infty$  controller design based on a novel parameterization of the controller set. *European Control Conference, 24-27 June 2014, Strasbourg, France. IEEE, 2014*, 67-72. ISBN: 978-3-9524269-1-3, DOI: 10.1109/ECC.2014.6862279
258. A. Shankar. *Wide-Area Controller Design for Two Area Power Systems Using Robust Control*, A Thesis Submitted for the Award of the Degree of Master of Technology in Electrical Engineering, Department of Electrical Engineering, National Institute of Technology, Rourkela, India, 2014.
259. P. Shen, H.-X. Li. A multiple periodic disturbance rejection control for process with long dead-time. *Journal of Process Control*, 24 (2014), 1394-1401. <http://dx.doi.org/10.1016/j.jprocont.2014.06.008>
260. D. Stancioiu, H. Ouyang. A probabilistic approach to robust control of beam structures subjected to a random stream of moving masses. *Proceedings of the 9th International Conference on Structural Dynamics, EURO-DYN 2014 Porto, Portugal, 30 June - 2 July 2014. A. Cunha, E. Caetano, P. Ribeiro, G. Müller (eds.), 2014*, 1595-1600. ISSN: 2311-9020; ISBN: 978-972-752-165-4
261. P. Apkarian, M. N. Dao, D. Noll. Parametric robust structured control design. *Cornell University Library, ArXiv e-prints in Optimization and Control [math.OC] 1405.4202v1, 2014*, 1-25. Available at <http://arxiv.org/abs/1405.4202v1>

262. S. Abdelmalek, H. Belmili, L. Barazane, L. Abdelkader. A New Robust  $H_\infty$  control power. *Proceedings of the International Conference on Control, Engineering & Information Technology (CEIT'14), 123-128, IPCO, 2014*. ISSN 2356-5608
263. R. Kant, G. Yedukondalu.  $H_\infty$  current control of a solar microgrid inverter tied to utility grid. *2014 Students Conference on Engineering and Systems (SCES), 28-30 May 2014, Allahabd, India, IEEE, 1-5*. ISBN: 978-1-4799-4940-3, DOI: 10.1109/SCES.2014.6880073
264. X. Li, X. Wang, Y. Wang. Mixed sensitivity  $H_\infty$  controller design for variable speed pump-controlled motor system. *2014 IEEE International Conference on Mechatronics and Automation, 3-6 August 2014, Tianjin, China, IEEE, 503-508*. ISBN: 978-1-4799-3978-7, DOI: 10.1109/ICMA.2014.6885749
265. M.N. Duc, T.N. Dong. Neural network structures for identification of nonlinear dynamic robotic manipulator. *2014 IEEE International Conference on Mechatronics and Automation, 3-6 August 2014, Tianjin, China, IEEE, 1575-1580*. ISBN: 978-1-4799-3978-7, DOI: 10.1109/ICMA.2014.6885935
266. Y. Zhou, G. Xu. Optimal sensor distribution in fault tolerant systems. *2014 33rd Chinese Control Conference (CCC), 28-30 July 2014, Nanjing, China, IEEE, 3106 - 3111*. DOI: 10.1109/ChiCC.2014.6895448
267. Y. Boughari, R.M. Botez, G. Ghazi, F. Theel. Robust flight control of the Cessna Citation X using evolutionary algorithms. *SAE 2014 Aerospace Systems and Technology Conference, Cincinnati, USA*. DOI: 10.4271/2014-01-2166
268. A. Schirrer, M. Kozek, F. Demourant and G. Ferreres. Feedback Control Designs. Chapter 6 in: *Modeling and Control for a Blended Wing Body Aircraft. A Case Study*. M. Kozek, A. Schirrer (Eds.), Springer, 2015. ISBN 978-3-319-10791-2, DOI 10.1007/978-3-319-10792-9
269. B. Shafiei, M. Ekramian, K. Shojaei. Robust tension control of strip for 5-stand tandem cold mills. *Journal of Engineering, Volume 2014, Article ID 409014, 13 pages*. <http://dx.doi.org/10.1155/2014/409014>
270. P.-C. Chen, K.-Y. Chang, W.-J. Chang, J.-C. Liu. The smooth switching gain-scheduled with  $H_\infty$  performance to the application of TORA systems. *International Journal of Modelling, Identification and Control, 22(2014), 261-274*. ISSN: 1746-6172, DOI: 10.1504/IJMIC.2014.065344
271. T. Surinkaew, I. Ngamroo. Robust stabilization of multimachine power system by DFIG wind turbine equipped with power oscillation damper. *International Electrical Engineering Congress (iEECON), 19-21 March 2014, Chonburi, Thailand. IEEE, 2014, 4 pages*. DOI: 10.1109/iEECON.2014.6925868
272. S. Vachirasricirikul, I. Ngamroo. Improved  $H_2/H_\infty$  control-based robust PI controller design of SMES for suppression of power fluctuation in microgrid. *International Electrical Engineering Congress (iEECON), 19-21 March 2014, Chonburi, Thailand. IEEE, 2014, 4 pages*. DOI: 10.1109/iEECON.2014.6925879
273. J. Vishnupriyan, P.S. Manoharan, A.P.S. Ramalakshmi. Uncertainty modeling of nonlinear 2-DOF helicopter model. *2014 International Conference on Computer Communication and Informatics (ICCCI), 3-5 January 2014, Coimbatore, India. IEEE, 2014, 6 pages*. DOI: 10.1109/ICCCI.2014.6921840
274. O. Rodriguez-Zalapa, A. Hernández-Zavala, H.A. Ruelta-Hueras. Fuzzy controller for a pneumatic positioning nonlinear system. In: *Nature-Inspired Computation and Machine Learning*. A. Gelbukh, F.C. Espinoza, S.N. Galicia-Haro (Eds.), Lecture Notes in Computer Science, Vol. 8857, Springer, 2014, 370-387. ISBN: 978-3-319-13649-3, DOI: 10.1007/978-3-319-13650-9

275. M. Dulau, D. Bika. Robust control of electro-discharge processing machine. *2014 International Conference and Exposition on Electrical and Power Engineering (EPE)*, 16-18 October 2014, Iasi, Romania. *IEEE*, 2014, 668-672. DOI: 10.1109/ICEPE.2014.6969993
276. D. Hernandez-Alcantara, J.C. Tudon-Martinez. State observers for semi-active suspensions: Experimental results. *2014 IEEE Conference on Control Applications (CCA)*, 8-10 October 2014, Juan Les Antibes, France. *IEEE*, 2014, 53-58. DOI: 10.1109/CCA.2014.6981328
277. S.A. Ajwad, M.I. Ullah, K. Baizid, J. Iqbal. A comprehensive state-of-the-art on control of industrial articulated robots. *Journal of the Balkan Tribological Association*, 20(2014), 499-521. ISSN 0209-4541
278. Cr. Boldișor, S. Coman.  $H_\infty$  controller design to control the mean arterial pressure and cardiac output. *Bulletin of the Transilvania University of Brașov, Series I: Engineering Sciences*, 56(2014), 61-68. ISSN 2065-2119
279. O. A. Sushchenko. Design of two-degree-of-freedom system for control by inertially stabilized platform. *Electronics and Control Systems*, 42(2014), 62-69. ISSN 1990-5548
280. L.H. Cortés, L.V. López. Aplicación del control robusto al control de vuelo para el seguimiento de trayectorias en proyectiles tierra-tierra. *Segundo Congreso Internacional sobre Tecnologías Avanzadas de Mecatrónica, Diseño y Manufactura - AMDM 2014, Universidad Central, Bogotá, Colombia, 22-24 octubre 2014*.
281. E.H. Koroishi, F.A. Lara-Molina, A.S. Borges, V. Steffen, Jr. Robust control in rotating machinery using linear matrix inequalities. *Journal of Vibration and Control*, 2015. DOI: 10.1177/1077546314565686
282. R. Yang, I. Probst, A. Mansours, M. Li, B. Clement. Underwater vehicle modeling and control application to Ciscree robot. In: *Monitoring Quantitatif de l'Environnement Sous-Marin (MOQESM'14) Conference*, 14-15 October 2014, Brest, France.
283. F. Gao, X. Li, Y. Li. Control of system with large parametric uncertainty using multiple robust controllers and switching. *2014 11th World Congress on Intelligent Control and Automation (WCICA)*, June 29 2014-July 4 2014, Shenyang, China. *IEEE*, 4408-4413. DOI: 10.1109/WCICA.2014.7053455
284. M. Dulau, S. Oltean, A. Gligor. Conventional control vs. robust control on heat-exchangers. *Procedia Technology*, 19 (2015), 534-540. DOI: 10.1016/j.protcy.2015.02.076
285. M. Dulau, D. Bika. Design of robust control for Single Machine Infinite Bus System. *Procedia Technology*, 19 (2015), 657-664. DOI: 10.1016/j.protcy.2015.02.093
286. S.A. Ajwad, J. Iqbal, M.I. Ullah, A. Mehmood. A systematic review of current and emergent manipulator control approaches. *Frontiers of Mechanical Engineering*, 2015, 13 pp.. ISSN: 2095-0233, DOI: 10.1007/s11465-015-0335-0
287. V. Azimi, M.B. Menhaj, A. Fakharian. Tool position tracking control of a nonlinear uncertain flexible robot manipulator by using robust  $H_2/H_\infty$  controller via T-S fuzzy model. *Sadhana (Springer India)*, 2015. ISSN: 0256-2499, DOI: 10.1007/s12046-015-0354-x
288. A. Banu, A.G.A. Muthalif. Estimating perturbation in eigenvalues for robust vibration controller design: analytical derivation and simulation. *International Journal of Engineering Systems Modelling and Simulation*, 7 (2015), 95-102. ISSN: 1755-9758, DOI: 10.1504/IJESMS.2015.068655
289. A.A. Haj Salah, T. Garna, J. Ragot, H. Messaoud. Transition and control of nonlinear systems by combining the loop shaping design procedure and the gap metric theory. *Transactions of the Institute of Measurement and Control*, 2015. DOI: 10.1177/0142331215577420

290. A.A. Haj Salah, T. Garna, J. Ragot, H. Messaoud. Synthesis of a robust controller with reduced dimension by the Loop Shaping Design Procedure and decomposition based on Laguerre functions. *Transactions of the Institute of Measurement and Control*, 2015.  
DOI: 10.1177/0142331215583101
291. S. Sumsurooah, M. Odavic, S. Bozhko. Development of LFT-based models for robust stability analysis of a generic electrical power system over all operating conditions. *International Conference on Electrical Systems for Aircraft, Railway, Ship Propulsion and Road Vehicles (ESARS)*, 3-5 March 2015, Aachen, Germany. *IEEE*, 2015, 6 p. DOI: 10.1109/ESARS.2015.7101478
292. B. Ulutas, A. Suleman, E.J. Park. LMI-based distributed  $H_\infty$  control of the Thirty Meter Telescope's primary mirror. *Mechatronics*, 2015. DOI: 10.1016/j.mechatronics.2015.04.003
293. Y. Mohamed, M. Davari. Dynamics and robust control of a grid-connected VSC considering the instantaneous power of DC- and AC-side filters. *IEEE Transactions on Power Electronics*, 99(2015). DOI: 10.1109/TPEL.2015.2439645
294. T. Szelitzky, E.H. Dulf. The advantages of robust control of pulse amplitude modulation series-parallel load induction heating inverters. *Optimal Control. Applications and Methods*, 2015. DOI: 10.1002/oca.2175
295. I.B. Tijani, R. Akmeliawati, A. Legowo, A. Budiyo. Optimization of an extended H-infinity controller for unmanned helicopter control using Multiobjective Differential Evolution (MODE). *Aircraft Engineering and Aerospace Technology*, 87(2015). ISSN: 0002-2667
296. A. Fofanov. *Power efficiency estimation and simulation of different control methods for the rotary screw compressor*. Master Thesis, Faculty of Technology, Lappeenranta University of Technology, Finland, 2015.
297. E.G. Hamdi, G.M.S. El-Bayoumi, A.H.M. Kasem. Structured Robust Control for Small UAV. *INCAS Bulletin*, 7(2015), 81-91. ISSN: 2066 – 8201
298. Y. Ma, B. Huang, C. Xiang, W. Wang. Forward flight attitude control of unmanned small-scaled gyroplane based on  $\mu$ -synthesis. *International Conference on Unmanned Aircraft Systems (ICUAS)*, 9-12 June 2015, Denver, CO, USA, 1338-1345. *IEEE*, 2015. ISBN: 978-1-4799-6009-5, DOI: 10.1109/ICUAS.2015.715.2.428
299. H. Bevrani, M.R. Feizi, S. Ataee. Robust frequency control in an islanded microgrid:  $H_\infty$  and  $\mu$ -synthesis approaches. *IEEE Transactions on Smart Grid*, 2015.  
DOI: 10.1109/TSG.2015.2446984
300. R. Kumar. Grey box system identification and optimal control of a single link flexible manipulator with Acd treatment using stand – off – layer. *International Journal of Applied Engineering Research*, 10 (2015), 16261-16282. ISSN: 0973-4562
301. P. Apkarian, M.N. Dao, D. Noll. Parametric robust structured control design. *IEEE Transactions on Automatic Control*, 60 (2015), 1857-1869. DOI: 10.1109/TAC.2015.2396644
302. K. Drozd. Estimation of the mechanical state variables of the two-mass system using fuzzy adaptive Kalman filter - Experimental study. *IEEE 2nd International Conference on Cybernetics (CYBCONF)*, 24-26 June 2015, Gdynia, Poland. *IEEE*, 2015, 455-459.  
DOI: 10.1109/CYBConf.2015.7175977
303. F.Z. Azaiz, A. Bounoua, A. Azaiz, A. Ayad. Robust control of the permanent magnet synchronous motor. *Rev. Roum. Sci. Techn. – Électrotechn. et Énerg.*, 60 (2015), 323–332.
304. C. Busch. *Ein Beitrag zum modellbasierten Regelungsentwurf elektropneumatischer Applikationen*, Universitätsverlag Ilmenau, 2014. ISBN: 978-3-86360-098-3

305. A. Francis, V.K. Gupta, S. Mukherjee. An underwater robot mimicking jet propulsion inspired by feather sea star. *2015 International Conference on Innovations in Information, Embedded and Communication Systems (ICIIECS), 19-20 March 2015, Coimbatore, Tamil Nadu, India. IEEE, 2015, 1-7.* ISBN: 978-1-4799-6817-6, DOI: 10.1109/ICIIECS.2015.7192784
306. H. Aicha, A. Mourad. H-infinity controller design for blood glucose regulation in diabetes patients in the presence of uncertain parameters. *2015 3rd International Conference on Control, Engineering & Information Technology (CEIT), 25-27 May 2015, Tlemcen, Algeria. IEEE, 2015, 1-6.* DOI: 10.1109/CEIT.2015.7233036
307. F. Ounis, N. Golea.  $\mu$ -Synthesis based robust voltage control for cascade boost power converter. *2015 3rd International Conference on Control, Engineering & Information Technology (CEIT), 25-27 May 2015, Tlemcen, Algeria. IEEE, 2015, 1-6.* DOI: 10.1109/CEIT.2015.7232982
308. I.B. Tijani, R. Akmeliawati, A. Legowo. Real-time implementation of  $H_\infty$  controller for UAV helicopter using MATLAB-based embedded programming approach. *2015 10th Asian Control Conference (ASCC), Kota Kinabalu, Malaysia. IEEE, 2015, 1-6.* DOI: 10.1109/ASCC.2015.7244511
309. C. Roos, J.-M. Bianic. A detailed comparative analysis of all practical algorithms to compute lower bounds on the structured singular value. *Control Engineering Practice, 44 (2015), 219-230.* <http://dx.doi.org/10.1016/j.conengprac.2015.06.006>
310. H. Hasanvand, B. Mozafari, M.R. Aavan, T. Amraee. Application of polynomial control to design a robust oscillation-damping controller in a multimachine power system. *ISA Transactions (2015).* <http://dx.doi.org/10.1016/j.isatra.2015.09.005>
311. R. Geyyer, A. Kienle, S. Palis. Robust control of continuous crystallization processes. *IFAC-PapersOnLine, 48-11(2015), 598-603.* doi:10.1016/j.ifacol.2015.09.252
312. M. Sabatini, P. Gasbarri, G.B. Palmerini. Delay compensation for controlling flexible space multibodies: Dynamic modeling and experiments. *Control Engineering Practice, 45(2015), 147-162.*
313. H. Zhang, Y. Zhang, C. Yin. Hardware-in-the-loop simulation of robust mode transition control for a series-parallel hybrid electric vehicle. *IEEE Transactions on Vehicular Technology, 2015.* DOI: 10.1109/TVT.2015.2486558
314. Q. Guo, T. Yu, D. Jiang. Robust  $H_\infty$  positional control of 2-DOF robotic arm driven by electro-hydraulic servo system. *ISA Transactions, 2015.* DOI: 10.1016/j.isatra.2015.09.014
315. Z. Jankovic, A. Nasiri, L. Wei. Robust  $H_\infty$  controller design for microgrid-tied inverter applications. *2015 IEEE Energy Conversion Congress and Exposition (ECCE) , 20-24 September 2015, Montreal, QC, Canada. IEEE, 2015, 2368-2373.* DOI: 10.1109/ECCE.2015.7309993
316. V. Morkun, N. Morkun, V. Tron. Distributed closed-loop control formation for technological line of iron ore raw materials beneficiation. *Metallurgical and Mining Industry, 7 (2015), 16-19.*
317. S.H. Almutairi, N. Aouf. Aircraft robust flight tracking control against actuator efficiency faults. *2015 19th International Conference on System Theory, Control and Computing (ICSTCC), 14-16 Oct. 2015, Cheile Gradistei, Roumania. IEEE, 2015, 901 - 906.* DOI: 10.1109/ICSTCC.2015.7321409
318. V.A. Mathios. *Hydrodynamic Assessment & Motion Optimization of Mechanically Coupled Barges.* Master of Science Thesis, Faculty of Mechanical, Maritime and Materials Engineering Delft University of Technology, 2015.
319. S.M.R. Taha, I.K. Ibraheem, A.A. Rodhan. A review of robust nonlinear control techniques on industrial robotics manipulator systems. *International Journal of Computer Applications, 128 (2015), 11-20.* ISSN: 0975 – 8887, DOI: 10.5120/ijca2015906513

320. D.-C. Dang, S.-K. Jung, Y.-W. Choi, Y.-B. Kim. An easy learning and regeneration strategy of robot motion. *2015 15th International Conference on Control, Automation and Systems, 13-16 October 2015, Busan, Korea. IEEE, 2015, 758-762.* DOI: 10.1109/ICCAS.2015.7364722
321. S. Punlabpho, T. Jearsiripongkul. Control system for double inverted pendulum on a cart by H-infinity controller. *International Review of Automatic Control (IREACO), 4(2015), 300-306.* DOI: 10.15866/ireaco.v8i4.6968
322. O. Sushchenko. Design of two-axis robust system for stabilization of information- measuring devices operated at UAVs. *2015 IEEE International Conference Actual Problems of Unmanned Aerial Vehicles Developments (APUAVD), 13-15 October 2015, Kiev, Ukraina. IEEE, 2015, 198-201.* 10.1109/APUAVD.2015.7346598
323. M. Abouzlam, R. Ouvrard, D. Mehdi, F. Pontlevoy, B. Gombert, N.K. Vel Leitner, S. Boukari. A  $H_\infty$  control for optimizing the advanced oxidation processes. Case of a catalytic ozonation reactor. *Control Engineering Practice, 44 (2015), 1-9.* <http://dx.doi.org/10.1016/j.conengprac.2015.07.007>
324. M.A. Chowdhury, M.A. Mahmud, A.M.T. Oo. Characteristics evaluation of an LMI-synthesis  $H_\infty$  controller for a superconducting magnetic energy systems applied in power systems. *2015 IEEE Innovative Smart Grid Technologies - Asia (ISGT ASIA), 3-6 November 2015, Bangkok, Thailand. IEEE, 2015, 1-5.* DOI: 10.1109/ISGT-Asia.2015.7387075
325. D.C Dang, Y.B. Kim. Accurate motion regeneration technique with robust control approach. *Tap chi Phat trien Khoa Cn, tap 18, 2015, 183-191.*
326. I. Tijani, A. Budiyo. Robust control of an unmanned underwater vehicles with parametric uncertainty. *Journal of Instrumentation, Automation and Systems, 2(2015).* ISSN: 2288-582X
327. A. Noshadi. *System Identification and High Performance Controllers of Active Magnetic Bearing Systems.* PhD Thesis, College of Engineering and Science, Victoria University, Melbourne, Australia, 2015.

#### 2016 r.

328. M.S. Sad Abadi. *Fixed-structure Control of LTI Systems with Polytopic-type Uncertainty: Application to Inverter-interfaced Microgrids.* PhD Thesis, École Polytechnique Fédérale de Lausanne, Suisse, 2016.
329. I. Tijani, A. Budiyo. Robust control using an extended H-infinity approach: Concepts and applications. *Journal of Mathematics, Statistics and Applications, 1(2016).* ISSN: 2508-1594
330. S.A. Davari. Predictive direct angle control of induction motor. *IEEE Transactions on Industrial Electronics, IEEE, 2016.* DOI: 10.1109/TIE.2016.2551198
331. A. Hassani, F. Saghafi, M. Pasand.  $H_\infty$  and  $\mu$  synthesis control of virtual structure satellites formation flying. *International Journal of Dynamics and Control, 2016, 1-15.* Print ISSN: 2195-268X, DOI: 10.1007/s40435-016-0238-x
332. P.S. Kumar, H. Priyadarshan, M.S.H. Simha. Study of robust control performance for inverted magnetic needle. *2016 Indian Control Conference (ICC), 4-6 Jan. 2016, Hyderabad, India. IEEE, 2016.* DOI: 10.1109/INDIANCC.2016.7441138
333. P.S. Kumar, H. Priyadarshan, M.S.H. Simha. 2-D inverted magnetic needle modelling and it's control: A novel benchmark problem in control system. *IFAC-PapersOnLine, 49-1(2016), 53-58.* DOI: 10.1016/j.ifacol.2016.03.028
334. S. Kumar, M.S. Varma, A.D. Rao, V.K. Agrawal.  $H_\infty$  tracking control for magnetically controlled nano-satellite. *IFAC-PapersOnLine, 49-1(2016), 166-172.* DOI: 10.1016/j.ifacol.2016.03.047

335. H. Shafiq, F.M. Malik. Sampled data robust control of an under-actuated electromechanical system with input delay. *MATEC Web of Conferences* **42**, 01004(2016), 1-7.  
DOI: 10.1051/mateconf/20164201004
336. Y. Boughari, R.M. Botez, G. Ghazi, F. Theel. Flight control clearance of the Cessna Citation X using evolutionary algorithms. *Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering*, 2016. doi: 10.1177/0954410016640821
337. X. Qiao, F. Luo, Y. Xu. Robust PID control design via mixed particle swarm optimization algorithm and gap metric. *International Journal of Control and Automation*, 9(2016), 141-150.  
DOI: 10.14257/ijca.2016.9.5.14
338. A. Hachana, M.N. Harmas. Synergetic and higher order sliding mode control of blood glucose regulation in diabetes patients. *2016 5th International Conference on Systems and Control (ICSC), 25-27 May 2016, Marrakech, Morocco. IEEE, 2016* DOI: 10.1109/ICoSC.2016.7507062
339. S. Khan, M.A. Anees, M. Rihan. Robust controller design for grid forming inverter in AC microgrid. *4th International Conference on Recent Trends in Engineering Science and Management (ICRTESM-16), 7th August 2016, Panjim, Goa (India), 269-276*. ISBN: 978-93-86171-01-6
340. В.В. Хоменко. *Багатокритеріальний синтез систем із анізотропними регуляторами на основі стохастичної мультиагентної оптимізації*, Кафедра «Електроенергетика», Українська інженерно-педагогічна академія, 2016.
341. S. Sumsurooah, S. Bozhko. A modelling methodology for robust stability analysis of nonlinear electrical power systems under parameter uncertainties. *IEEE Transactions on Industry Applications*, 2016. DOI: 10.1109/TIA.2016.2581151
342. S.A. Taher, M. Zolfaghari, C. Cho, M. Abedi. A new approach for soft synchronization of microgrid using robust control theory. *IEEE Transactions on Power Delivery*, 2016. DOI: 10.1109/TPWRD.2016.2596106
343. O. Sushchenko, A. Goncharenko. Design of robust systems for stabilization of unmanned aerial vehicle equipment. *International Journal of Aerospace Engineering, Volume 2016 (2016), Article ID 6054081, 10 pages*. <http://dx.doi.org/10.1155/2016/6054081>
344. А.Г. Мазко. *Робастная устойчивость и стабилизация динамических систем*. Институт математики НАН Украины, Київ, 2016. ISBN 978-966-02-7839-4
345. T. Oehlschlägel. *Anwendungsorientierte robuste Regelung einer Klasse unendlich-dimensionaler Systeme am Beispiel eines trimorphen Biegewandlers*. PhD Thesis, Vom Fachbereich Elektrotechnik und Informationstechnik der Technische Universität Darmstadt, 2016.
346. M. Rozewicz, A. Pilat. Robust control of bicycle model with CMG. *21st International Conference on Methods and Models in Automation and Robotics (MMAR), 29 August-1 September 2016, Miedzydroje, Poland*. DOI: 10.1109/MMAR.2016.7575163
347. O. Sushchenko. Robust control of inertially stabilized platforms for ground vehicles on the basis of  $H_\infty$ -synthesis. *Proceedings of the National Aviation University, Kyiv, Ukraine, №3(68), 2016, 24-34*. ISSN 1813-1166 print / ISSN 2306-1472 online
348. L.F. da Rosa, G.H.C. Oliveira, G.V. Leandro. PID robusto com norma  $H_\infty$  e otimizacao por algoritmos geneticos para controle de frequencia em usinas hidreletricas. *VI Simpósio Brasileiro de Sistemas Elétricos, 22-25 May 2016, Natal, Rio Grande do Norte, Brasil*.
349. M. Davari, Y. A.-R. Mohamed. Robust vector control of a very weak-grid-connected voltage-source converter considering the phase-locked loop dynamics. *IEEE Transactions on Power Electronics*, 32 (2017), 977-994. DOI: 10.1109/TPEL.2016.2546341



350. J.F. Koenen. *Ein Beitrag zur Beherrschung von Unsicherheit in Lastmonitoring-Systemen*. Dissertation, Institut für Mechanik und Regelungstechnik - Mechatronik, Universität Siegen, Germany, 2016. ISSN 2191-5601
351. R. Vyas, J. Xue. Modelling a landing gear device as a double inverted pendulum by simulating bird's legs. *International Journal of Scientific & Engineering Research*, 7 (2016), 416-423. ISSN 2229-5518
352. Р.С. Мартынов. *Задача управления движением двухкорпусного судна с малой площадью ватерлинии в условиях волнения*, Выпускная квалификационная работа бакалавра, Кафедра компьютерных технологий и систем, Санкт-Петербургский государственный университет, 2016.
353. В.Д. Елистратов, А.Г. Ильина. Робастное управление следящим электроприводом с нежестко присоединенной нагрузкой с ограничением нормы  $H_\infty$ . *Вестник Астраханского государственного технического университета. Серия: Морская техника и технология*, Выпуск № 4/2016, 89-94. ISSN 2073-1574
354. L. Wang, Ch.W. Jin, J. Zhou, Y.P. Xu.  $\mu$  synthesis control of the active magnetic bearing system. In: *Datong Qin, Yimin Shao (Eds.), Power Engineering, Proceedings of the International Conference on Power Transmissions 2016 (ICPT 2016), Chongqing, P.R. China, 27-30 October 2016. Taylor&Francis, London, 2017, 53-60*. DOI: 10.1201/9781315386829-10, ISBN 978-1-138-03267-5
355. Z. Dlamini. *Robust Fly-by-Wire under Horizontal Tail Damage*, PhD Thesis, Department of Electrical and Electronic Engineering, University of Stellenbosch, South Africa, 2016.
356. R.M. Imran. *Multivariable Control for Load Mitigation of Wind Turbine*. PhD Dissertation, Faculty of Engineering and Science, Aalborg University, Denmark, 2016.
357. E. Joelianto, G. Gani, N.K. Putri. Robust control with linear matrix inequality approach for ship steering problem. 2016 International Conference on Instrumentation, Control and Automation (ICA), 29-31 August 2016, Bandung, West Java, Indonesia. IEEE, 2017. DOI: 10.1109/ICA.2016.7811488
358. S.-M. Kim, J.A. Pereira, V. Lopes Jr., A.E. Turra, M.J. Brennan Practical active control of cavity noise using loop shaping: Two case studies. *Applied Acoustics*, 121 (2017), 65-73. <http://dx.doi.org/10.1016/j.apacoust.2016.12.004>
359. R.L. Pereira, K.H. Kienitz, F.H.D. Guaracy. Discrete-time static  $H_\infty$  loop shaping control via LMIs. *Journal of the Franklin Institute*, 2017. <http://dx.doi.org/10.1016/j.jfranklin.2017.01.009>
360. R. Rusu-Both. Dynamic mathematical modelling and advanced control strategies for complex hydrogenation process. In *New Advances in Hydrogenation Processes - Fundamentals and Applications*, M.T. Ravanchi (Ed.), Ch. 16, 327-351. *InTech*, 2017. ISBN 978-953-51-2869-4, <http://dx.doi.org/10.5772/65336>
361. P. Shen, H.-X. Li. The consistency control of mold level in casting process. *Control Engineering Practice*, 62 (2017), 70-78. <http://dx.doi.org/10.1016/j.conengprac.2017.02.011>
362. A. Souza, L. Souza, H Infinity Attitude Controller Design for a Rigid-Flexible Satellite Considering the Parametric Uncertainty, *SAE Technical Paper 2016-36-0377*, 2016. doi:10.4271/2016-36-0377.
363. F. Tan, H.-X. Li, P. Shen. Smith predictor-based multiple periodic disturbance compensation for long dead-time processes. *International Journal of Control*, 2017. DOI: 10.1080/00207179.2017.1303748

364. Y. Wang, S. Youa, X. Zheng, H. Zhang. Accurate model reduction and control of radiator for performance enhancement of room heating system. *Energy and Buildings*, 138 (2017), 415–431. <http://dx.doi.org/10.1016/j.enbuild.2016.12.034>
365. C. Wu, Y. Cao, L. Zhuang, Y. Xie, M. Ding. Path tracking for visual navigation based on  $H_2/H_\infty$ . *Journal of Beijing University of Aeronautics and Astronautics*, 42 (2016), 1279–1285. DOI: 10.13700/j.bh.1001-5965.2015.0370
366. C. Xia, W. Wang, G. Chen, X. Wu, S. Zhou, Y. Sun. Robust control for the relay ICPT system under external disturbance and parametric uncertainty. *IEEE Transactions on Control System Technology*, 2017. DOI: 10.1109/TCST.2016.2634502
367. S. Yang, C. Sultan. LPV control of a tensegrity-membrane system. *Mechanical Systems and Signal Processing*, 95 (2017), 397–424. <http://dx.doi.org/10.1016/j.ymssp.2017.03.027>
368. S. Sumsurooah, M. Odavic, S. Bozhko.  $\mu$  approach to robust stability domains in the space of parametric uncertainties for a power system with ideal CPL. *IEEE Transactions on Power Electronics*, 2017. ISSN 0885-8993, <https://doi.org/10.1109/TPEL.2017.2668900>
369. M. Dulau, S.-E. Oltean, A.-V. Duka. Robust control of a multivariable system. *Procedia Technology*, 181 (2017), 626–633. doi: 10.1016/j.proeng.2017.02.443
370. Z. Ni. *Design and Validation of High Speed Active Trailer Steering System for Articulated Heavy Vehicle*, Thesis submitted to the University of Ontario, Institute of Technology in the fulfillment of the Requirement for the degree of Master of Engineering in Mechanical Engineering Oshawa, Ontario, Canada, 2016.
371. F. F. S Bin Shawia. *Risk Management Strategies for dealing with Unpredictable Risk in Saudi Arabian Organisations*. PhD Thesis, University of Salford, Manchester, College of Science & Technology, School of the Built Environment, 2016.
372. В.М. Никифоров, Е.С. Смирнов, Ф.А. Юрлов, М.М. Чайковский, С.С. Золотухин. Расширенная математическая модель маятникового акселерометра с кремниевым подвесом. *Труды ФГУП НПОЦАП, Системы и приборы управления, Научно- производственный центр автоматизации и приборостроения им. академика Н.А. Пилюгина, М., 2016*. ISSN: 1991-5950.
373. H. Bevrani, B. Francois, T. Ise. Robust microgrid control synthesis. In *Microgrid Dynamics and Control*, John Wiley & Sons, Inc., Hoboken, NJ, USA, 2017. DOI: 10.1002/9781119263739.ch9
374. M. Buciakowski, M. Pazera, M. Witczak. Robust guaranteed cost control for nonlinear system using product reduction algorithm. In: J. Kościelny, M. Sifert, A. Szytyber (eds.), *Advances Solutions in Diagnostics and Fault Tolerant Control*, Advances in Intelligent Systems and Computing (AISC, vol. 635), Springer, Cham, 2017. DOI: 10.1007/978-3-319-64474-5\_7
375. P. Hang, X. Chen, S. Fang, F. Luo. Robust control for four-wheel-independent-steering electric vehicle with steer-by-wire system. *International Journal of Automotive Technology*, 18 (2017), 785–797. DOI: 10.1007/s12239-017-0078-5
376. R. Matusu, B. Senol, C. Yeroglu. Linear systems with unstructured multiplicative uncertainty: Modeling and robust stability analysis. *PLoS ONE* 12(7):e0181078, 2017. DOI: 10.1371/journal.pone.0181078
377. A. Swain, D. Almakhlles, M.J. Neath, A. Nasiri. Robust control of wireless power transfer system. *13th IEEE International Conference on Control & Automation (ICCA), 3-July 2017, Ohrid, Macedonia*. IEEE 2017. DOI: 10.1109/ICCA.2017.8003208
378. J. Bergamo. *Robust Control of Parameter Fluctuations for Helical Motor*, Master's Degree in Automation Engineering, Department of Information Engineering, Universita Degli Studi di Padova, Italy. 2017.

379. D. Zheng, H. Xu. Robust  $H_\infty$  control of a friction based electrohydraulic load simulator. *29th Chinese Control And Decision Conference (CCDC), 28-30 May 2017, Chongqing, China*. IEEE, 2017. DOI: 10.1109/CCDC.2017.7979193
380. V. Iannino, V. Colla, M. Innocenti, A. Signorini. Design of a  $H_\infty$  robust controller with  $\mu$ -analysis for steam turbine power generation applications. *Energies*, 10 (2017). doi:10.3390/en10071026
381. В.И. Краснощеченко. Разработка и исследование математической модели гибкого однозвенного манипулятора с использованием принципа най-меншего действия Гамильтона. *Человеческий капитал*, №1 (97), 2017, 55–60.
382. S. Kapoor. *Fault Tolerant Control of Active Trailer Steering Systems for Multi-Trailer Articulated Heavy Vehicles*. A Thesis Presented for the Degree of Master of Applied Science in Automotive Engineering, Faculty of Engineering and Applied Science, University of Ontario, Institute of Technology. Oshawa, Ontario, Canada, 2017.
383. Y. Wang, S. You, W. Zheng, H. Zhang, X. Zheng, Q. Miao. State space model and robust control of plate heat exchanger for dynamic performance improvement. *Applied Thermal Engineering*, 128(2018), 1588-1604. <https://doi.org/10.1016/j.applthermaleng.2017.09.120>
384. I. Mutlu, F. Schrödel, D. Mihailescu-Stoica, K. Alaa, M.T. Söylemez. A case study on determining stability boundaries of parameter uncertain systems. *2018 26th Mediterranean Conference on Control and Automation (MED), 19-22 June 2018, Zadar, Croatia. IEEE, 2018*. DOI: 10.1109/MED.2018.8442780
385. J. Zhang, T. Zheng, W. Cui, M. Liu. Hardware in the loop experimental study of 3-DOF helicopter. *2018 Chinese Control And Decision Conference (CCDC), 9-11 June 2018, Shenyang, China. IEEE, 2018*. DOI: 10.1109/CCDC.2018.8407960
386. S. Zhu, Y. He. Robust controller design for active suspension systems of road vehicles. *ASME 2017 International Mechanical Engineering Congress and Exposition, Tampa, Florida, USA, November 3-9 2017. ASME, vol. 12: Transportation Systems, 7 pages*. ISBN: 978-0-7918-5847-9
387. C. Xia, W. Wang, S. Ren, X. Wu, Y. Sun. Robust control for inductively coupled power transfer system with coil misalignment. *IEEE Transactions on Power Electronics*, 33 (2018), 8110 - 8122. DOI: 10.1109/TPEL.2017.2771532
388. O.M.M. Vall. Mixed sensitivity  $H_\infty$  control for LTI systems with varying time delays. *Journal of Systems Engineering and Electronics*, 29 (2018), 611 - 617. DOI: 10.21629/JSEE.2018.03.18
389. В.Д. Елистратов, А.Г. Ильина. Робастное управление прецизионным электроприводом азимутальной оси телескопа траекторных измерений «Сажень» с ограничением нормы  $H_\infty$ . В сборнике: *Сборник трудов V Всероссийского конгресса молодых ученых материалы конгресса: в 2 томах. 2016. С. 155-159*.
390. Д.К. Сатыбалдина, А.А. Маштаева, Е.З. Смаилов. Разработка робастной системы управления летательным аппаратом. В сборнике: *Перспективы развития науки в современном мире, Сборник статей по материалам V международной научно-практической конференции: В 3 частях. Ответственный редактор: Халиков А.Р., 2018, 112-117*.
391. O.A. Sushchenko, Y.V. Beliaitsev. Robust synthesis of two-degree-of-freedom system for stabilization of ground vehicle instrumentation. *2017 IEEE First Ukraine Conference on Electrical and Computer Engineering (UKRCON), 29 May-2 June 2017, Kiev, Ukraine. IEEE, 2017*. DOI: 10.1109/UKRCON.2017.8100407
392. O.A. Sushchenko. Computer-aided procedures assigned for design of robust inertially stabilized platforms. *Electronics & Control Systems*, 4 (2017), 64 - 70.

393. O.A. Sushchenko. Features of testing of inertially stabilized platforms. *Proceedings of the National Aviation University, Kiev, Ukraine, №1 (74), 2018, 61 - 67*. DOI: 10.18372/2306-1472.74.12290
394. H.D. Tho, K. Terasima. Robust control designs of payload's skew rotation in a boom crane system. *IEEE Transactions on Control Systems Technology, 27(2019), 1608–1621*. DOI: 10.1109/TCST.2018.2834879
395. A. Suarez, A.M. Giordano, K. Kondak, G. Heredia, A. Ollero. Flexible link long reach manipulator with lightweight dual arm: Soft-collision detection, reaction, and obstacle localization. *2018 IEEE International Conference on Soft Robotics (RoboSoft), 24-28 April 2018, Livorno, Italy. IEEE, 2018*. DOI: 10.1109/ROBOSOFT.2018.8404953
396. W. Qian. Robust flutter suppression and wind-tunnel tests of a three-dimensional wing. *Journal of Aerospace Engineering, 31 (2018)*. [https://doi.org/10.1061/\(ASCE\)AS.1943-5525.0000925](https://doi.org/10.1061/(ASCE)AS.1943-5525.0000925)
397. S. Sumsurooah, M. Odavic, S. Bozhko, D. Boroyevich. Robust stability analysis of a DC/DC buck converter under multiple parametric uncertainties. *IEEE Transactions on Power Electronics, 33 (2018), 5426 - 5441*. DOI: 10.1109/TPEL.2017.2736023
398. H. Li, X. Wang, J. Xiao. Differential evolution-based load frequency robust control for micro-grids with energy storage systems. *Energies, 11(2018)*. DOI: 10.3390/en11071686
399. Z.-G. Lu, Z. Yang, Q. Huang, H.-C. Wang. Robust active guidance control using the  $\mu$ -synthesis method for a tramcar with independently rotating wheelsets. *Proceedings of the Institution of Mechanical Engineers, Part F: Journal of Rail and Rapid Transit, 233(2019), 33–48*. <https://doi.org/10.1177/0954409718777374>
400. M. Davari, Y.A.-R.I. Mohamed. Robust droop and DC-bus voltage control for effective stabilization and power sharing in VSC multiterminal DC grids. *IEEE Transactions on Power Electronics, 33 (2018), 4373 - 4395*. DOI: 10.1109/TPEL.2017.2715039
401. M.A. Chowdhury, S.B.A. Kashem.  $H_\infty$  loop-shaping controller design for a grid-connected single-phase photovoltaic system. *International Journal of Sustainable Engineering, 11 (2018), 196-204*. DOI: 10.1080/19397038.2018.1444680
402. X. Chen, L. Wu, J. Yin, J. Li, J. Luo. Robust  $H_\infty$  control design of an electromagnetic actuated active suspension considering the structure non-linearity. *Proceedings of the Institution of Mechanical Engineering, Part D: Journal of Automobile Engineering, 2018*. <https://doi.org/10.1177/0954407017753231>
403. Y. Cheng, Z. Chen, M. Sun, Q. Sun. Cascade active disturbance rejection control of a high-purity distillation column with measurement noise. *Industrial & Engineering Chemistry Research, 57 (2018), 4623 - 4631*. DOI: 10.1021/acs.iecr.8b00231
404. J. Bhukya, V. Mahajan. Mathematical Modelling and stability analysis of power system stabilizer for damping low-frequency oscillations of wind power system. *IET Renewable Power Generation, 2018*. DOI: 10.1049/iet-rpg.2018.5555
405. A. EL Moubarek Bouzid. *Elaboration d'une Methode de Controle pour Ameliorer la robustesse d'un Micro Reseau Electrique*. Doctorat en Genie Electrique (Ph.D.), Universite du Quebec a Trois-Rivieres, Quebec, Canada, 2017.
406. M. Chidambaram, N. Saxena. Relay Control Systems. In *Realy Tuning of PID controllers. Advances of Industrial Control, Springer, Singapore, 13-51, 2018*. DOI: 10.1007/978-981-10-7727-2\_2
407. P. Durdevic, Z. Yang. Application of  $H_\infty$  robust control on a scaled offshore oil and gas de-oiling facility. *Energies, 2018, 11, 287*. doi:10.3390/en11020287

408. R.M. Farhadi, V.I. Kortunov. Robust control design and testing for an unmanned air vehicle. *Наука і техніка Повітряних Сил Збройних Сил України*, 2017, № 3(28), 37 - 43. ISSN 2223-456X
409. M Ghafouri. *Subsynchronous Resonance in DFIG-Based Wind Farms*. These Presente en vue de l'obtention du diplome de Philosophie Doctor (Genie Electrique). Departement de Genie Electrique, Ecole Polytechnique de Montreal, 2018.
410. C. Gu, J. Yin, J. Luo, X. Chen, J. Wang. Performance-oriented controls of a novel rocker-pushrod electromagnetic active vehicle suspension. *Mechanical Systems and Signal Processing*, 109 (2018) 1–14. <https://doi.org/10.1016/j.ymssp.2018.02.019>
411. E.A. Hamdi, G.M. Sayed El-Bayoumi. A Comparative Study on Automatic Flight Control for small UAV. *Proceedings of the 5th International Conference of Control, Dynamic Systems, and Robotics (CDSR'18), Niagara Falls, Canada, June 7 – 9, 2018, Paper No. 132*. DOI: 10.11159/cdsr18.132
412. H. Hua, C. Hao, Y. Qin, J. Cao. A class of control strategies for energy Internet considering system robustness and operation cost optimization. *Energies*, 2018, 11, 1593. doi:10.3390/en11061593
413. T. Kerdphol, F.S. Rahman, Y. Mitani, M. Watanabe, S. Kfeoglu. Robust virtual inertia control of an islanded microgrid considering high penetration of renewable energy. *IEEE Access*, 6 (2018), 625 - 636. DOI: 10.1109/ACCESS.2017.2773486
414. Y.L. Li, H. Du, M.K. Yang, Z.Y. He. Two-degree-of-freedom  $H_\infty$  robust control optimization for the IPT system with parameter perturbations. *IEEE Transactions on Power Electronics*, 33(2018), 10954–10969. DOI: 10.1109/TPEL.2018.2809725
415. A. Köthe, R. Luckner. Flight path control for a multi-body HALE aircraft. *Advances in Aerospace Guidance, Navigation and Control*, 2017, 421 - 442. DOI: [https://doi.org/10.1007/978-3-319-65283-2\\_23](https://doi.org/10.1007/978-3-319-65283-2_23)
416. J.H. Lee, H.Y. Kim, K.H. Kim, M.H. Kim, S.W. Lee. Control of a hybrid active-passive vibration isolation system. *Journal of Mechanical Science and Technology*, 31 (2017), 5711 - 5719. <https://doi-org.ins2i.bib.cnrs.fr/10.1007/s12206-017-1112-2>
417. V. Morkun, N. Morkun, V. Tron, S. Hryshchenko. Synthesis of robust controllers for the control systems of technological units at iron ore processing plants. *Eastern-European Journal of Enterprise Technologies*, 91 (2018), 37 - 47. DOI: 10.15587/1729-4061.2018.119646
418. V.S. Morkun, V.V. Tron. Coordinated automatized control of an ore-processing enterprise as a technical-organizational system. *Computer Science Information Technology Atomation Journal*, №7, 2018, 45 - 49. ISSN 2414-9055
419. M. Sabatini, P. Gasbarri, G.B. Palmerini. Delay compensation for controlling flexible space multibodies: Dynamic modeling and experiments. *Control Engineering Practice*, 45 (2015), 147–162. <http://dx.doi.org/10.1016/j.conengprac.2015.09.013>
420. A.G. Souza, L.C.G. Souza. Design of a controller for a rigid-flexible satellite using the H-infinity method considering the parametric uncertainty. *Mechanical Systems and Signal Processing* 116 (2019) 641–650. <https://doi.org/10.1016/j.ymssp.2018.07.002>
421. X. He, Y. Liu, K. Yang, J. Wu, X. Ji. Robust coordination control of AFS and ARS for autonomous vehicle path tracking and stability. *2018 IEEE International Conference on Mechatronics and Automation (ICMA)*, 5-8 Aug. 2018, Changchun, Jilin, China. IEEE, 2018. DOI: 10.1109/ICMA.2018.8484617

422. P. Hang, X. Chen. Integrated chassis control algorithm design for path tracking based on four-wheel steering and direct yaw-moment control. *Proceedings of the Institution of Mechanical Engineers, Part I: Journal of Systems and Control Engineering*, 2018.  
<https://doi.org/10.1177/0959651818806075>
423. R.K. Vashisht, Q. Peng. Crack detection in the rotor ball bearing system using switching control strategy and Short Time Fourier Transform. *Journal of Sound and Vibration* 432 (2018) 502-529. <https://doi.org/10.1016/j.jsv.2018.06.061>
424. M. Venkatesh, S. Patra, G. Ray. Robust controller design method for linear systems with parametric uncertainty using minimum eigenvalue approach. *IFAC PapersOnLine* 51-1 (2018) 610-614. DOI: 10.1016/j.ifacol.2018.05.102
425. Y. Wang, J. Wang, W. Zeng, H. Liu, Y. Chai.  $H_\infty$  robust control of an LCL-type grid-connected inverter with large-scale grid impedance perturbation. *Energies*, 2018, 11, 57.  
doi:10.3390/en11010057
426. I. El Khalil Mekki. Multivariable predictive control in the form of state space for a chemical multivariable system. *International Journal of Control, Energy and Electrical Engineering*, 7(2018), 67-72. [http://www.ipco-co.com/CEEE\\_Journal/Vol%207/CIER-288.pdf](http://www.ipco-co.com/CEEE_Journal/Vol%207/CIER-288.pdf)
427. S.F. Yapur, E.J. Adam. A comparison of MIMO tuning controller techniques applied to steam generator. *Advances in Science, Technology and Engineering Systems Journal*, 3 (2018), 7-14. ISSN: 2415-6698
428. C. Zhao, R. Xu, J. Xiong, Y. Xiao. Controller design and sensitivity analysis for active disturbance rejection control. *Boletín Técnico*, Vol.55, Issue 19, 2017, pp.505-513.
429. S. Seyedtabaïi, S. Zaker. Lateral control of an Aerosonde facing tolerance in parameters and operation speed: performance robustness study. *Transactions of the Institute of Measurement and Control*, 41(2019), 2319-2327. <https://doi.org/10.1177/0142331218799142>
430. A. Barakat, S. E. Chouaba. Performance improvement of brushless generator voltage regulation by using a controlled non linear discharge resistor. *2018 XIII International Conference on Electrical Machines (ICEM)*, 3-6 Sept. 2018, Alexandroupoli, Greece. IEEE, 2018.  
DOI: 10.1109/ICELMACH.2018.8507159
431. В.И. Краснощеченко. Синтез робастного динамического  $H_\infty$ -регулятора низкого порядка с использованием линейных матричных неравенств и проекционных лем. *Мехатроника, Автоматизация, Управление*, 19(2018), 219-231. ISSN 1684-6427 (Print), ISSN 2619-1253 (Online)
432. C. Hao, H. Hua, Y. Qin, J. Cao. Robust controller design for energy router in energy internet via mixed  $H_2/H_\infty$  control technique. *2018 IEEE PES Asia-Pacific Power and Energy Engineering Conference (APPEEC)*, 7-10 Oct. 2018, Kota Kinabalu, Malaysia. IEEE, 2018.  
DOI: 10.1109/APPEEC.2018.8566306
433. N. Trochermann, P.B. Stump, F. Thielecke, D. Metzler, S. Bassett. A robust pressure controller for a variable speed AC motor pump: Application to aircraft hydraulic power packages. *BATH/ASME 2018 Symposium on Fluid Power and Motion Control*, Bath, UK, September 12-14, 2018. ASME, 2018, Paper No. FPMC2018-8868, pp. V001T01A034. ISBN: 978-0-7918-5196-8, doi:10.1115/FPMC2018-8868
434. R. Andoga, L. Fozo, R. Kovacs, K. Beneda, T. Moravec, M. Schreiner. Robust control of small turbojet engines. *Machines* 2019, 14 pp.. doi:10.3390/machines7010003
435. A.S. Fernández-Miranda. *Compliant Aerial Manipulation*, PhD Thesis, University of Seville, Spain, 2018.

436. H. Guessoum, C.-E. Feraga, L. Mehennaoui, M. Sedraoui, A. Lachouri. A robust performance enhancement of primary  $H_\infty$  controller based on auto-selection of adjustable fractional weights: Application on a permanent magnet synchronous motor. *Transactions of the Institute of Measurement and Control*, 41(2019), 3248–3263. <https://doi.org/10.1177/0142331218823861>
437. T. Roy, R.K. Barai, R. Dey.  $H_\infty$  control oriented LFT modelling of linear dynamical system. *Advances in Modelling and Analysis C*, 73 (2018), 189-196. [https://doi.org/10.18280/ama\\_c.730408](https://doi.org/10.18280/ama_c.730408)
438. F. Asadi, N. Abut. Kharitonov's theorem: A good starting point for robust control. *The International Journal of Electrical Engineering Education*, 2019. DOI: 10.1177/0020720919829708
439. M. Juneja, S.K.Nagar. An improvement in LQR controller design for TLIP system via model order reduction. *International Journal of Engineering Research and Technology*, 11 (2018), 1891–1900. ISSN 0974-3154
440. A. Cosar. *Nonlinear Controller Design For High Speed Dynamic Atomic Force Microscope System*. A Thesis Submitted to the Graduate School of Engineering and Sciences of Izmir Institute of Technology in Partial Fulfillment of the Requirements for the Degree of Master of Science in Electronics and Communication Engineering. Izmir, Turkey, 2018.
441. T. Krzyzynski, I. Maciejewski, L. Meyer, H. Meyer. Control System Design. In: *Modelling and Control Design of Vibration Reduction Systems*. Springer, Cham, 2019. DOI: [https://doi.org/10.1007/978-3-030-03047-6\\_7](https://doi.org/10.1007/978-3-030-03047-6_7)
442. T. Krzyzynski, I. Maciejewski, L. Meyer, H. Meyer. A Method of Shaping the Vibro-isolation Properties of Semi-active and Active Systems. In: *Modelling and Control Design of Vibration Reduction Systems*. Springer, Cham, 2019. DOI: [https://doi.org/10.1007/978-3-030-03047-6\\_8](https://doi.org/10.1007/978-3-030-03047-6_8)
443. A. Suarez, P. Sanches-Cuevas, M. Fernandez, M. Perez. Lightweight and compliant long reach aerial manipulator for inspection operations. *2018 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, 1-5 Oct. 2018, Madrid, Spain. IEEE, 2019. DOI: 10.1109/IROS.2018.8593940
444. M. Zhu, X. Wang, Z. Dan, S. Zhang, X. Pei. Two freedom linear parameter varying  $\mu$  synthesis control for flight environment testbed. *Chinese Journal of Aeronautics*, 32(2019), 1204–1214. DOI: 10.1016/j.cja.2019.01.017
445. M.Y. Zhu, X. Wang, S.B. Yang, H.R. Chen, K.Q. Miao, N.N. Gu. Two degree-of-freedom  $\mu$  synthesis control with Kalman filter for flight environment simulation volume with sensors uncertainty. *Proceedings of the ASME Turbo Expo: Turbomachinery Technical Conference and Exposition*, vol. 6, Phoenix, AZ, June 17-21, 2019. ASME, 2019. DOI: 10.1115/GT2019-90116
446. M. Debouza, A. Al-Durra. Design of H-infinity Controller for Doubly Fed Induction Generator Based Wind Turbine. *2019 IEEE 28th International Symposium on Industrial Electronics (ISIE)*, Vancouver, BC, Canada, 12-14 June 2019. DOI: 10.1109/ISIE.2019.8781309
447. R.K. Vashisht, Q. Peng. Adaptive hybrid control of unbalanced vibrations of a rotor/active magnetic bearing system with coupling misalignment using low cost instrumentation. *Journal of Vibration and Control*, 2019. <https://doi.org/10.1177/1077546319852221>
448. К.Л. Перев. *Обобщен метод за редукция на модели за обекти на управление от висок ред*, Дисертационен труд за придобиване на научна степен "Доктор на техническите науки Технически университет - София, 2019.
449. L. Ahmoud, A.K. Al-Jiboory. Insulated-gate bipolar transistor junction temperature estimation based on  $H^\infty$  robust controller in wind energy applications. *Wind Engineering*, 2019 <https://doi.org/10.1177/0309524X19877645>

450. M. Ghafouri, U. Karaagac, H. Karimi, J. Mahseredjian. Robust subsynchronous interaction damping controller for DFIG-based wind farms. *Journal of Modern Power Systems and Clean Energy*, 7(2019), 1663–1674. <https://doi.org/10.1007/s40565-019-0545-2>
451. S. Thai, C. Roos, J.-M. Biannic. Probabilistic  $\mu$ -analysis for stability and  $\mathcal{H}_\infty$  performance verification. *2019 American Control Conference (ACC), Philadelphia, PA, USA, 10-12 July 2019*. IEEE, 2019. INSPEC Accession Number: 18955154
452. M.M.S. Pasand. Luenberger-type cubic observers for state estimation of linear systems. *Cornell University Library, ArXiv e-prints in Optimization and Control [math.OC] 1909.11978v1, 2019*. Available at <http://https://arxiv.org/abs/1909.11978>
453. C.M.R. de Oliveira, M.L. Aguiar, A.G. Castro, P.R.U. Guazzelli, W.C.A. Pereira, J.R.B.A. Monteiro. High accuracy dynamic load emulation method for electrical drives. *IEEE Transactions on Industrial Electronics*, 67(2019), 7239–7249. DOI: 10.1109/TIE.2019.2942566
454. E. Goudarzi. *Improving Ride Comfort Using Control Systems Design for Active Dampers*, Master's thesis in Systems, Control and Mechatronics, Department of Mechanics and Maritime Sciences, Chalmers University of Technology, Gothenburg, Sweden, 2019.
455. X. Ma, S. Zheng, K. Wang. Active surge control for magnetically suspended centrifugal compressors using a variable equilibrium point approach. *IEEE Transactions on Industrial Electronics*, 66(2019), 9383 – 9393. DOI: 10.1109/TIE.2019.2891412
456. Y. Cheng, Z. Chen, M. Sun, Q. Sun. Active disturbance rejection generalized predictive control for a high purity distillation column process with time delay. *The Canadian Journal of Chemical Engineering*, 97(2019), 2941-2951. DOI: 10.1002/cjce.23513
457. M. Asslan, B. Fares, A. Joukhadar. A high performance robust hard disk drive controller using parameter-dependent Lyapunov function approach. *Soft Computing & Electrical Engineering*, 1(2019), 40-53. ISSN(online): 2664-9543.
458. P.R.P. Silva. *Projeto de contrador de atitude de veiculo lancador de satelites por selecao de modo via metodo genetico-neural*, Dissertacao da Universidade Estadual do Maranhao, Sao Luis, Brasilia, 2019. <http://www.pecs.uema.br/wp-content/uploads/2020/01/Paulo-Renato.pdf>
459. S.I. Osadchy, V.A. Zozulya, A.P. Ladanyuk, L.G. Vikhrova, V.M. Kalich. Optimal robust control of a robots group. *Automatic Control and Computer Sciences*, 53(2019), 298–309. DOI: 10.3103/S0146411619040084
460. S. Etedali. Sensitivity analysis on optimal PID controller for nonlinear smart base-isolated structures. *International Journal of Structural Stability Dynamics*, 19(2019). DOI: 10.1142/S0219455419500809
461. K. Zhang, Z. Yang, T. Basar. Policy optimization provably converges to Nash equilibria in zero-sum linear quadratic games. *Advances in Neural Information Processing Systems*, 32(2019). H. Wallach, H. Larochelle, A. Beygelzimer, F. d'Alché-Buc, E. Fox, R. Garnett, Eds., 11602–11614, Curran Associates, Inc., 2019. <http://papers.nips.cc/paper/9335-policy-optimization-provably-converges-to-nash-equilibria-in-zero-sum-linear-quadratic-games.pdf>
462. D.-H. Nguyen, V.-H. Nguyen. Robust control of two-axis gimbal system. *2019 International Symposium on Electrical and Electronics Engineering (ISEE 2019), Ho Chi Minh City, Vietnam, Oct. 10-12, 2019, 177–182*. IEEE, 2019. DOI: 10.1109/ISEE2.2019.8921070
463. J. Brossard, D. Bensoussan, R.J. Landry, M. Hammami. Robustness studies on quadrotor control. *2019 International Conference on Unmanned Aircraft Systems (ICUAS'2019), Atlanta, GA, June 11-14, 2019, 344–352*. DOI: 10.1109/ICUAS.2019.8798198



464. M.A. Rosique, R. Alamin, J.F. Whidborne, F. James. Application of LQG and H-infinity gain scheduling techniques to active suppression of flutter. *IFAC Papersonline*, 52(2019), 502–507. DOI: 10.1016/j.ifacol.2019.11.293
465. B. Alharbi, M. Alhomim, R. McCann. Robust control of DC-DC boost converter by using  $\mu$ -synthesis approach. *IFAC Papersonline*, 52(2019), 200–205. DOI: 10.1016/j.ifacol.2019.08.179
466. E.M. Mekheal, M. Emad, M. Zakaria, R.A. Hamdy, M.I. El Singaby. Design of low order robust controller using the artificial bee colony algorithm. *2019 10th International Renewable Energy Congress (IREC), Sousse, Tunisia, March 26-28, 2019*. DOI: 10.1109/IREC.2019.8754561
467. L. Alhmoud, A.K. Al-Jiboory. Insulated-gate bipolar transistor junction temperature estimation based on  $\mathcal{H}_\infty$  robust controller in wind energy applications. *Wind Engineering*, 2019. DOI: 10.1177/0309524X19877645
468. M. Kaleemullah, W.F. Faris, F. Hasbullah, N.M. Ghazaly. Control of active suspension system using robust  $H_\infty$  control with genetic algorithm. *International Journal of Advanced Science and Technology*, 28(2019), 763 – 782.
469. M. Kaleemullah, W.F. Faris, N.M. Ghazaly. Analysis of active suspension control policies for vehicle using robust controllers. *International Journal of Advanced Science and Technology*, 28(2019), 836 – 855.
470. A. Chokor. *Design of Several Centralized and Decentralized Multilayer Robust Control Architectures for Global Chassis Control*, PhD Thesis, Université de technologie de Compiègne, Heudiasyc Laboratory UMR CNRS, France, 2019.
471. A. Chokor, M. Doumiati, R. Talj, A. Charara. Design of a new gain-scheduled LPV/ $\mathcal{H}^\infty$  controller for vehicle's global chassis control. *2019 IEEE 58th Conference on Decision and Control (CDC), Nice, France, 11-13 Dec. 2019*. IEEE, 2020. DOI: 10.1109/CDC40024.2019.9029341
472. O. Boudiba, S. Firsov. Designing adaptive PID controller non-sensitive to changes in aerodynamic characteristics of an unmanned aerial vehicle. *Eastern-European of Enterprise Technologies*, 97(2019), 68–75. DOI: 10.15587/1729-4061.2019.155616
473. S.S. Pradhan, R. Pradhan, B. Subudhi. Design and analysis of an  $H_\infty$  controller for a single phase grid connected photovoltaic system with parametric uncertainties. *2019 Second International Conference on Advanced Computational and Communication Paradigms (ICACCP), 25-28 Feb. 2019, Gangtok, India*. IEEE, 2019. DOI: 10.1109/ICACCP.2019.8882898
474. M. Jibril.  *$H_\infty$  and  $\mu$ -synthesis Design of Quarter Car Active Suspension System*. MSc Thesis, Faculty of Electrical and Computer Engineering, Jimma University, Jimma, Ethiopia, 2020.
475. О.В. Перга. *Робастна система управління літальним апаратом*. Дипломна робота випускника освітнього ступеня "Магістр". Національний Авіаційний Університет України, Київ, 2020.
476. R. Devarapalli, B. Bhattacharyya. A framework for synthesis in damping power network oscillations with STATCOM. *Iranian Journal of Science and Technology, Transactions of Electrical Engineering*, 44(2020), 927–948. <https://doi.org/10.1007/s40998-019-00278-4>
477. M. Rajendran, P. Parthasarathy, A. Anbumozhi. Robust Analysis of T-S Fuzzy Controller for Nonlinear System Using H-Infinity. In: *Venkata Rao R., Taler J. (Eds), Advanced Engineering Optimization Through Intelligent Techniques*, 949(2020), 643-651. Springer, Singapore. DOI: 10.1007/978-981-13-8196-6\_56

478. R. Ali, V.S. Bhat. Performance analysis of converter circuit transfer function model using PID control algorithms. *Advances in Communication, Signal Processing, VLSI, and Embedded Systems. Lecture Notes in Electrical Engineering, (LNEE), vol. 614, 2020, 25-38.*  
DOI: 10.1007/978-981-15-0626-0\_3
479. S. Lin, P. Qi, X. Zhao. Power generation control of a hydrostatic wind turbine implemented by model-free adaptive control scheme. *Wind Energy, 23(2020), 849–863.* DOI: 10.1002/we.2437
480. M.M. Mustafa, I. Hamarash, C.D. Crane. Dedicated nonlinear control of robot manipulators in the presence of external vibration and uncertain payload. *Robotics, 9(2020).*  
DOI:10.3390/robotics9010002
481. R.K. Vashisht, Q. Peng. Feasibility analysis of active chatter control for stationary and revolving bar boring operations based on magnitude of control forces using fractional order PD controller. *International Journal of Advanced Manufacturing Technology, 2020.* DOI: 10.1007/s00170-019-04881-x
482. M. Modabbernia, B. Alizadeh, A. Sahab, M.M. Moghaddam. Robust control of automatic voltage regulator (AVR) with real structured parametric uncertainties based on  $H_\infty$  and  $\mu$ -analysis. *ISA Transactions (2020).* DOI: 10.1016/j.isatra.2020.01.010
483. T. Surinkaew, R. Shah, M. Nadarajah, S.M. Muyeen. Forced oscillation damping controller for an interconnected power system. *IET Generation, Transmission & Distribution, 14(2020), 339-347.* DOI: 10.1049/iet-gtd.2019.1115
484. T. Surinkaew, R. Shah, S.M. Muyeen, M. Nadarajah, K.M. Emami, I. Ngamroo. Novel control design for simultaneous damping of inter-area and forced oscillations. *IEEE Transactions on Power Systems, 2020.* DOI: 10.1109/TPWRS.2020.3009422
485. S. Lin, X. Zhao, X. Tong. Feasibility studies of a converter-free grid-connected offshore hydrostatic wind turbine. *IEEE Transactions on Sustainable Energy, 2020.* doi:10.1109/TSTE.2019.2963628
486. Y. p. Zhang, X. Zhang, T. Qian, R. Hu. Modeling and simulation of a passive variable inertia flywheel for diesel generator. *Energy Reports, 2020.* <https://doi.org/10.1016/j.egyr.2020.01.001>
487. M. Al-Ashmori, X. Wang. A systematic literature review of various control techniques for active seat suspension systems. *Applied Sciences, 10 (2020).* doi:10.3390/app10031148
488. А. В. Лопухов, А. А. Бабченко. Способ повышения эффективности наведения беспилотного летательного аппарата на высокоскоростные и высокоманевренные цели. *Системный анализ и прикладная информатика, 1, 2020, 4-10.*
489. M. Pagone, C. Novara, P. Martella, C. Nocerino. GNC robustness stability verification for an autonomous lander. *Aerospace Science and Technology, 2020.*  
<https://doi.org/10.1016/j.ast.2020.105831>
490. D. Gomez, S.J. Dyke, S. Rietdyk. Structured uncertainty for a pedestrian-structure interaction model. *Journal of Sound and Vibration, 474 (2020).* <https://doi.org/10.1016/j.jsv.2020.115237>
491. B. Singh, S. Urooj, S. Singh. Analysis of autopilot system, integrated with modelling and comparison of different controllers with the system. *Journal of Discrete Mathematical Sciences and Cryptography, 2020.* <https://doi.org/10.1080/09720529.2020.1718282>
492. O.A. Sushchenko. Automation of early design phases for inertially stabilized platforms. *Electronics and Control Systems, 2020, №1(63): 69-75.* ISSN 1990-5548
493. O. Sushchenko. Computer-aided design of intelligent control system of stabilizing platforms with airborne instrumentation. In: *Handbook of Research on Artificial Intelligence Applications in the Aviation and Aerospace Industries, IGI Global, 2020, 231-262.* DOI: 10.4018/978-1-7998-1415-3.ch010

494. P. Sutiyasadi, M. Parnichkun. Push recovery control of quadruped robot using particle swarm optimization based structure specified mixed sensitivity  $H_2/H_\infty$  control. *Industrial Robot*, 47 (2020), 423-434. <https://doi.org/10.1108/IR-06-2019-0135>
495. M.M.S. Pasand. Luenberger-type cubic observers for state estimation of linear systems. *International Journal of Adaptive Control and Signal Processing*, 9(2020), 1148-1161. <https://doi.org/10.1002/acs.3125>.
496. S. Kim, N. Das, R. Bhattacharya. Modeling and optimal control of hybrid UAVs with wind disturbance. *Cornell University Library, ArXiv e-prints in Systems and Control [eecs.SY]* 2006.11192v1, 2020, 1-7. Available at <http://arxiv.org/abs/2006.11192>
497. J.M. Bundi, X. Ban, D.W. Wekesa, S. Ding. Pitch control of small H-type darrieus vertical axis wind turbines using advanced gain scheduling techniques. *Renewable Energy* (2020). <https://doi.org/10.1016/j.renene.2020.05.184>
498. J.M. Bundi, X. Ban, D.W. Wekesa, Y. Sun. Advanced gain-scheduled control of a DFIG based on a H-darrieus wind turbine for maximum power tracking and frequency support. *Control Engineering and Applied Informatics*, 22(2020), 23-32.
499. R.F. Pinheiro, D. Colon. On the  $\mu$ -analysis and synthesis of MIMO Lurie-type systems with application in complex networks. *Circuits, Systems, and Signal Processing* (2020). <https://doi.org/10.1007/s00034-020-01464-0>
500. A. Chokor, R. Talj, M. Doumiati, A. Hamdan, A. Charara. A comparison between a centralized multilayer LPV/ $H_\infty$  and a decentralized multilayer sliding mode control architectures for vehicle's global chassis control. *International Journal of Control*, 2020. <https://doi.org/10.1080/00207179.2020.1791360>
501. R.K. Vashisht, Q. Peng. Fractional calculus-based energy efficient active chatter control of milling process using small size electromagnetic actuators. *Journal of Vibration and Acoustics*, 2020. <https://doi.org/10.1115/1.4047703>
502. M. Dulau, S.E. Oltean. Simulations of robust control of the throttle valve position. *2020 IEEE International Conference on Automation, Quality and Testing, Robotics (AQTR), 21-23 May 2020, Cluj-Napoca, Romania*. DOI: 10.1109/AQTR49680.2020.9129912
503. K. Jukić. *H-beskonačno optimalno upravljanje nestabilnim elektromehaničkim sustavom*. Diplomski rad, Sveučilište u Zagrebu, Fakultet strojarstva i brodogradnje, Zagreb, 2020.
504. G. Ren. *Robust Control of Double-rod and Single-rod Electrohydrostatic Actuators: Design and Implementation*, PhD Thesis, Department of Mechanical Engineering, University of Manitoba, Winnipeg, Manitoba, Canada, 2020.
505. A.B. Elghonemy, A.A. El-Badawy. Robust H-infinity controller for a single-axis spacecraft rotation. *2020 12th International Conference on Electrical Engineering (ICEENG), 7-9 July 2020, Cairo, Egypt*. IEEE, 2020. DOI: 10.1109/ICEENG45378.2020.9171723
506. S.S. Hosseini, J. Marzbanrad. Robust  $H_\infty$  controller in a MRF engine mount for improving the vehicle ride comfort. *International Journal of Acoustics and Vibration*, 25(2020), 219-225. DOI: 10.20855/ijav.2020.25.21592
507. R.K. Vashisht. *Modelling, fault detection and active vibration control of rotor dynamic systems with applications in machine tools*, PhD Thesis, Department of Mechanical Engineering, University of Manitoba, Winnipeg, Manitoba, Canada, 2020.
508. S. Yazdi, A. Khayatian, M.H. Asemani. Optimal robust model predictive reset control design for performance improvement of uncertain linear system. *ISA Transactions*, 2020. DOI: 10.1016/j.isatra.2020.07.026

509. H. Yang, R. Morales-Viviescas, M.C. Turner. Robust analysis for principal component active control systems. *IEEE Transactions on Control Systems Technology*, 2020.  
DOI: 10.1109/TCST.2020.3004996
510. E.H. Hasnaa, B. Mohammed. Robust control of an hexapod robot in lifting mode. *2020 International Conference on Electrical and Information Technologies (ICEIT)*, 4-7 March 2020, Rabat, Morocco, IEEE, 2020. DOI: 10.1109/ICEIT48248.2020.9113209
511. А.А.Бабченко, С.А. Шабан, А.В. Лопухов. Синтез управления беспилотным летательным аппаратом на основе синергетической теории управления. *Вестник Гродненского Государственного Университета имени Янки Купалы. Серия 6. Техника. Гродненский государственный университет имени Янки Купалы (Гродно)*, 10(2020), 48–57. ISSN: 2223-5396
512. A.V. Lapin, N.E. Zubov. Minimization of Control Signals at Stabilizing Spatial Motion of a Maneuverable Aircraft. *2020 International Russian Automation Conference (RusAutoCon)*, 6-12 Sept. 2020, Sochi, Russia. IEEE, 2020. DOI: 10.1109/RusAutoCon49822.2020.9208159
513. S. Kim, V. Tadiparthi, R. Bhattacharya. Computationally efficient attitude estimation with extended  $\mathcal{H}_2$  filtering. *Journal of Guidance, Control, and Dynamics*, 44(2021).  
DOI: 10.2514/1.G005140
514. C. Onat, M. Sahin. Low order  $H_\infty$  controller design for a smart beam with parameter varying. *DÜMF Mühendislik Dergisi*, 11(2020), 457-469 (in Turkish). DOI: 10.24012/dumf.459979
515. H. Aggumus R. Guclu. Robust  $[H_{\text{sub}}[\text{infinity}]]$  control of STMDs used in structural systems by hardware in the loop simulation method. *Actuators*, vol. 9, no. 3, 2020.
516. J.M. Bundi, X. Ban, D.W. Wekesa, X. Huang. Linear robust control methods for a doubly fed induction generator at steady states. *IECON 2020 The 46th Annual Conference of the IEEE Industrial Electronics Society*, 18-21 Oct. 2020, Singapore.  
DOI: 10.1109/IECON43393.2020.9254978
517. M. Ashok Kumar, S. Kanthalakshmi.  $H_\infty$  Control law for line of sight stabilization in two-axis gimbal system. *Journal of Vibration and Control*, 2020. DOI: 10.1177/1077546320974545
518. S. Arefin, D. Dumur, A. Bettachioli, A. Hot, S. Tebbani. Sine sweep tracking control of a lightly-damped spacecraft. *2020 24th International Conference on System Theory, Control and Computing (ICSTCC)*, 8-10 Oct. 2020, Sinaia, Romania. IEEE, 2020.  
DOI: 10.1109/ICSTCC50638.2020.9259742
519. J.K. Bokam, N. Patnana, T. Varshney, V.P. Singh. Sine cosine algorithm assisted FOPID controller design for interval systems using reduced-order modeling ensuring stability. *Algorithms*, 13(2020), 1–19. DOI: 10.3390/a13120317
520. D. Kumar, B.K. Mukherjee, H.D. Mathur, H. Siguerdidjane, S. Bhanot. Forecast-based modeling and robust frequency control of standalone microgrids considering high penetration of renewable sources. *International Transactions on Electrical Energy Systems*, 31(2021), 1–24.  
DOI: 10.1002/2050-7038.12759
521. M. Dulau, S.E. Oltean. The effects of weighting functions on the performances of robust control systems. *Proceedings (Multidisciplinary Digital Publishing Institute)*, 63 (2020).  
DOI:10.3390/proceedings2020063046
522. A. Hamdan, A. Chokor, R. Talj, M. Doumiati. A centralized multilayer LPV/ $H_{\text{infinity}}$  control architecture for vehicle's global chassis control, and comparison with a decentralized architecture. *21st IFAC World Congress (IFAC WC 2020)*, Jul 2020, Berlin (virtual), Germany.  
<https://hal.archives-ouvertes.fr/hal-02492723>

523. N. Bunderson, D. Bevely, A. Costley, W. Bryan, G. Mifflin, C. Balas. Automated tuning and calibration for unmanned ground vehicles. *2020 NDIA Ground Vehicle Systems Engineering and technology Symposium, AAIT Technical Session, Aug. 11-13, 2020, Novi, Michigan, USA.*
524. A.S. Yildiz, S. Sivrioglu. Improving curving performance of a straddle-type monorail vehicle by using semi-active devices. *International Journal of Heavy Vehicle Systems*, 2020. DOI: 10.1504/IJHVS.2020.10021579
525. P.S. Motiram, S.S. Zope. Load frequency control of distributed generation using GA optimized PID Controller. *International Journal of Advanced Trends in Computer Science and Engineering*, 9 (2020), 311–320. DOI: 10.30534/ijatcse/2020/4491.52020
526. B.M. Alharbi. *Robust Control of a Multi-phase Interleaved Boost Converter for Photovoltaic Application using  $\mu$ -Synthesis Approach*. Ph.D. Dissertation, University of Arkansas, 2020.
527. X.C.M. Cubillos. *Controle de Atitude de um Satélite Aplicando a União dos Métodos SDRE e H-infinito*. Tese de Doutorado em Engenharia e Tecnologia Espaciais, Instituto Nacional de Pesquisas Espaciais, São José dos Campos, 2020. <http://urlib.net/8JMKD3MGP3W34R/4256CAP>
528. M. Ashok Kumar, S. Kanthalakshmi.  $H_\infty$  control law for line of sight stabilization in two-axis gimbal system. *Journal of Vibration and Control*, 2020. DOI: 10.1177/1077546320974545
529. T. Surinkaew, R. Shah, M. Nadarajah, S.M. Muyeen, K. Emami, I. Ngamroo. Forced oscillation detection amid communication uncertainties. *IEEE Systems Journal*, 2021. DOI: 10.1109/JSYST.2020.3046778
530. M. Zhu, X. Wang, K. Miao, H. Pei, J. Liu. Two degree-of-freedom  $\mu$  synthesis control for turbofan engine with slow actuator dynamics and uncertainties. *Journal of Physics: Conference Series*, vol. 1828, 2020 International Symposium on Automation, Information and Computing (ISAIC 2020), 2-4 December 2020, Beijing, China. IOP Publishing, 2021. doi:10.1088/1742-6596/1828/1/012144
531. T. Mahto, R. Kumar, H. Malik, S.M. Suhail Hussain, T.S. Ustun. Fractional order fuzzy based virtual inertia controller design for frequency stability in isolated hybrid power systems. *Energies*, 14 (2021), 1–21. DOI: 10.3390/en14061634
532. P.D. Dewangan, V.P. Singh, S.L. Sinha. Design of FOPID controller for higher order continuous interval system using improved approximation ensuring stability. *SN Applied Sciences*, 3(2021), Article number 493. DOI: 10.1007/s42452-021-04492-w
533. Z. Zhang, P. Yan. Enhanced robust nanopositioning control for an X-Y piezoelectric stage with sensor delays: An infinite dimensional  $H_\infty$  optimization approach. *Mechatronics*, 75(2021). DOI: 10.1016/j.mechatronics.2021.102511
534. S. Liu, J.F. Whidborne, S. Chumalee. Disturbance observer enhanced neural network LPV control for a blended-wing-body large aircraft. *IEEE Transactions on Aerospace and Electronic Systems*, 2021. DOI: 10.1109/TAES.2021.3068429
535. Y. Mitrishkin, E. Pavlova, M. Patrov. Design and comparison of plasma  $H_\infty$  loop shaping and RGA- $H_\infty$  double decoupling multivariable cascade magnetic control systems for a spherical Tokamak. *Advances in Systems Science and Applications*, 21 (2021), 22–45. DOI: 10.25728/assa.2021.21.1.942
536. A.P. Kurdyukov, O.G. Andrianova, A.A. Belov, D.A. Goldin. In between the  $LQG/H_2$  and  $H_\infty$ -control theories. *Automation and Remote Control*, 82(2021), 565–618. DOI:10.1134/S0005117921040019
537. M. Yousfi, C.B. Njima, T. Garna. Decentralized robust control of nonlinear uncertain multivariable systems. *Arabian Journal for Science and Engineering*, 2021. DOI: 10.1007/s13369-021-05435-8

538. V. Mihaly, M. Susca, D. Morar, M. Stanese, P. Dobra.  $\mu$ -synthesis for fractional-order robust controllers. *Mathematics*, 9(2021), 1–21. DOI: 10.3390/math9080911
539. A. Hakemi, D. Jovanovic, D.M. Vilathgamuwa, G.R. Walker. Generic uncertainty parameter analysis and optimization of series-series wireless power transfer system for robust controller design. *IEEE Transactions on Industrial Electronics*, 2021. DOI: 10.1109/TIE.2021.3071689
- D.-W. Gu, P. Petkov, M. Konstantinov.** *Robust Control Design with MATLAB*, 2nd ed. Springer, London, 2013.
540. S.K. Routray, N. Nayak, P.K. Rout. A robust H-infinity controller based STATCOM for damping power system oscillations. *International Review of Electrical Engineering (IREE)*, 8 (2013), 1043-1056, ISSN: 1827-6660
541. C. Alippi. *Intelligence for Embedded Systems. A Methodological Approach*. Springer, Heidelberg, 2014. ISBN 978-3-319-05277-9, DOI 10.1007/978-3-319-05278-6
542. M. Tavakoli-Kakhki, M.S. Tavazoei, Proportional stabilization and closed-loop identification of an unstable fractional order process, *Journal of Process Control*, 24 (2014), 542-549. <http://dx.doi.org/10.1016/j.jprocont.2014.02.019>
543. S. Oh. *Theoretical Modeling and Computational Simulation of Robust Control for Mars Aircraft*, PhD Thesis, Department of Aerospace Engineering, University of Kansas, USA, 2014.
544. S. Ozana, P. Vojcinak, M. Pies , R. Hajovsky. Control design of mixed sensitivity problem for educational model of helicopter. *Advances in Electrical and Electronic Engineering*, 12(2014), 488-500. ISSN: 1336-1376
545. A.T. Almaktoom, K.K. Krishnan, P. Wang, S. Alsobhi. Assurance of system service level robustness in complex supply chain networks. *International Journal of Advanced Manufacturing Technology*, 74 (2014), 445-460. DOI: 10.1007/s00170-014-5883-7
546. M. Sumislawska, O. Agbaje, D.F. Kavanagh, K.J. Bumham. Equivalent circuit model estimation of induction machines under elevated temperature conditions. *2014 UKACC International Conference on Control (CONTROL)*, 9-11 July 2014, Loughborough, UK, IEEE, 2014, 413 - 418. DOI: 10.1109/CONTROL.2014.6915176
547. M.-B. Radac, R.-E. Precup, E.M. Petriu. Design and testing of a constrained data-driven iterative reference input tuning algorithm. *European Control Conference*, 24-27 June 2014, Strasbourg, France. IEEE, 2014, 2034 - 2039. ISBN: 978-3-9524269-1-3, DOI: 10.1109/ECC.2014.6862222
548. В.П. Зінченко, Г.В. Сарибоба. Дослідження та підбір параметрів котушки для мікросупутника НТУУ «КПІ». *Технологический аудит и резервы производства*, 17 (2014), 58-64. <http://dx.doi.org/10.15587/2312-8372.2014.25336>
549. M. Abdullahi. *Modeling, Simulation and Stabilization of a Double Quad Inverted Pendulum System (DQIP) Using a Linear Quadratic Regulator (LQR) Controller*, A Thesis Submitted to the Department of Electrical and Computer Engineering, Ahmadu Bello University, Zaria, Nigeria, in Partial Fulfillment of the Requirements for the Award of Master of Science (M.Sc) Degree in Electrical Engineering, 2014.
550. M. Toda. *Robust Motion Control of Oscillatory-Base Manipulators*. Springer, Heidelberg, 2015. ISBN 978-3-319-21779-6, DOI 10.1007/978-3-319-21780-2
551. X.-L. Zhang, H.-M. Fan, J.-Y. Zang, L. Zhao, S. Hao. Nonlinear control of triple inverted pendulum based on GA-PIDNN. *Nonlinear Dynamics*, 79 (2015), 1185-1194. DOI: 10.1007/s11071-014-1735-0

552. G. Eigner, J.K. Tar, L. Kovács. Novel error interpretation in case of linear parameter varying systems. *16th IEEE International Symposium on Computational Intelligence and Informatics, 19–21 November, 2015, Budapest, Hungary. IEEE 2015*, 243-248.
553. S.-W. Rhee. Radial type satellite attitude controller design using LMI method and robustness analysis. *Journal of the Korean Society for Aeronautical and Space Sciences*, 43 (2015), 998–1007. DOI:10.5139/JKSAS.2015.43.11.998
554. S.H. Almutairi, N. Aouf. Aircraft robust flight tracking control against actuator efficiency faults. *2015 19th International Conference on System Theory, Control and Computing (ICSTCC), 09 November 2015, Cheile Gradistei, Romania. IEEE, 2015*. DOI: 10.1109/ICSTCC.2015.7321409

## 2016 r.

555. G. Eigner, J. Tar, I.J. Rudas, L Kovács. LPV-based quality interpretations on modeling and control of diabetes. *Acta Polytechnica Hungarica*, 13 (2016), 171-190.
556. O. Sushchenko. Design of two-degre-of-freedom robust system for ground vehicle equipment stabilization. *Восточно-Европейский журнал передовых технологий*, 1(2016), 38-48. ISSN 1729-3774, DOI: 10.15587/1729-4061.2016.60633
557. A. Oveisi, T. Nestorović. Mu-synthesis based active robust vibration control of an MRI inlet. *Facta Universitatis, Series: Mechanical Engineering*, 14 (2016), 37-53. ISSN: 0354-2025.
558. S.H. Almutairi. *Optimal Fault-tolerant Flight Control for Aircraft with Actuation Impairments*. PhD Dissertation, School of Aerospace, Transport and Manufacturing, Cranfield University, UK, 2016.
559. S.H. Almutairi, N. Aouf. Enhancing the aircraft's stability and controllability against actuator faults using robust flight control. *2016 IEEE International Conference on Control and Robotics Engineering (ICCRE), 2-4 April 2016, Singapore. IEEE, 2016*, 1-6. DOI: 10.1109/ICCRE.2016.7476136
560. P. Simplicio, S. Bennani, X. Lefort, A. Marcos, C. Roux. Structured singular value analysis of the Vega launcher in atmospheric flight. *Journal of Guidance, Control, and Dynamics*, 39(2016), 1342-1355. <http://dx.doi.org/10.2514/1.G000335>
561. G. Eigner. *Closed-Loop Controller Design Possibilities for Nonlinear Physiological Systems*, PhD Thesis, Applied Informatics and Applied Mathematics Doctoral School, Óbuda University, Budapest, 2016.
562. T.D. Chollom, N. Ofodile, O. Ubadike. Application techniques of multi-objective particle swarm optimization: Aircraft flight control. *2016 UKACC 11th International Conference on Control (CONTROL), 31 Aug.-2 Sept. 2016, Belfast, United Kingdom. IEEE, 2016*. DOI: 10.1109/CONTROL.2016.7737548
563. S.S. Dezfuli, B. Ebrahimi, K. Grigoriadis, M. Franchek. Internal model control for a class of uncertain time-delay systems. *2016 American Control Conference (ACC), 6-8 July 2016, Boston, MA, USA. IEEE, 2016*. DOI: 10.1109/ACC.2016.7525039
564. T. Loose. Reglerentwurf mit klassischen und Computational Intelligence Methoden in der Hochschullehre am Beispiel von Modellen. In: *F. Hoffmann, E. Hüllermeier, R. Mikut (Eds.), Proceedings 26. Workshop Computational Intelligence, Dortmund, 24.-25. November 2016, 261-280. Scientific Publishing, Karlsruhe, 2016*. ISBN 978-3-7315-0588-4, DOI: 10.5445/KSP/1000060007
565. S.H. Mousavian, H.R. Koofgar. Identification-based robust motion control of an AUV: Optimized by particle swarm optimization algorithm. *Journal of Intelligent and Robotic Systems*, 2016. DOI 10.1007/s10846-016-0401-9

566. A.-M. D. Tran, J.-I. Yoon, Y.-B. Kim.  $\mu$ -synthesis robust control on tension adjustment of towing rope system. In: *V.H. Duy, T.T. Dao, S.B. Kim, N.T. Tien, I. Zelinka (Eds.), AETA 2016: Recent Advances in Electrical Engineering and Related Sciences, Volume 415 of the series Lecture Notes in Electrical Engineering, 87–96. Springer International Publishing AG, Cham, Switzerland, 2016.* 978-3-319-50903-7, DOI 10.1007/9783319509044\_9
567. T. Yamaguchi, D.P. Stoten. Synthesised  $H_\infty/\mu$  control design for dynamically substructured systems. *13th International Conference on Motion and Vibration Control (MOVIC 2016) and the 12th International Conference on Recent Advances in Structural Dynamics (RASD 2016), 4–6 July 2016, Southampton, UK. Journal of Physics: Conference Series 744 (2016), 1–12. IOP Publishing, 2016.* doi:10.1088/1742-6596/744/1/012205
568. E. Lee. *Design Optimization of Active Trailer Differential Braking Systems for Car-Trailer Combinations*. Master of Applied Sciences Thesis, Faculty of Engineering and Applied Science University of Ontario Institute of Technology, Oshawa, Ontario, Canada, 2016.
569. S. Zhu. *Coordinated Control of Active Safety Systems for Multi-Trailer Articulated heavy Vehicles*. PhD Thesis, Faculty of Engineering and Applied Science, University of Ontario Institute of Technology, Oshawa, Ontario, Canada, 2016.
570. S.-W. Rhee. Comparison study of H-infinity controller design algorithms for spacecraft attitude control. *Journal of The Korean Society for Aeronautical and Space Sciences, 44 (2016), 57–69.* DOI: 10.5139/JKSAS.2016.44.1.57
571. W. Chen, N. Theodomile. Simulation of a triple inverted pendulum based on fuzzy control. *World Journal of Engineering and Technology, 2016, 4, 267–272.* DOI: 10.4236/wjet.2016.42026
572. A.T. Almaktoom, K.K. Krishnan, P. Wang, S. Alsobhi. Cost efficient robust global supply chain system design under uncertainty. *International Journal of Advanced Manufacturing Technology, 85(2016), 853–868.* DOI: 10.1007/s00170-015-7965-6
573. L.A. Ordaz-Padilla, R. Peña-Gallardo, J.A. Morales-Saldaña, G. Gutierrez-Urueta. Uncertainty modeling of a PSS3B Power System Stabilizer. *2016 IEEE International Autumn Meeting on Power, Electronics and Computing (ROPEC), 9-11 Nov. 2016, Ixtapa, Mexico.* IEEE, 2016. DOI: 10.1109/ROPEC.2016.7830605
574. M. Schimmack, P. Mercorelli. A sliding mode control with a bang–bang observer for detection of particle pollution. In: *Variable-Structure Approaches*, A. Rauh, L. Senkel (Eds.), Springer, Cham, 2016. DOI: 10.1007/978-3-319-31539-3\_5
575. A.M. Sharipova, V.U. Arkov. Computer-aided estimation of portfolio management quality. *IEEE Conference on Quality Management, Transport and Information Security, Information Technologies (IT&MQ&IS), 4-11 Oct. 2016.* IEEE, 2016. DOI: 10.1109/ITMQIS.2016.7751954
576. A. Opalinski, L. Jarzebowicz. Analytical modeling of electric drives for vehicle traction control systems. *2016 Eleventh International Conference on Ecological Vehicles and Renewable Energies (EVER), 6-8 April 2016, Monte Carlo.* IEEE, 2016, 1-7. DOI: 10.1109/EVER.2016.7476350
577. X He, K. Yang, Y. Liu, X. Ji. A novel direct yaw moment control system for autonomous vehicle. *Intelligent and Connected Vehicles Symposium, SAE Mobilus, Technical Paper 2018-01-1594, 2018.* DOI: 10.4271/2018-01-1594
578. P. Bhowmick, S. Patra. An observer-based control scheme using negative-imaginary theory. *Automatica, 81, 2017, 196–202.* DOI: 10.1016/j.automatica.2017.03.024
579. R. Canahuire, A.L. Serpa. Reduced order  $H_\infty$  controller design for vibration control using genetic algorithms. *Journal of Vibration and Control, 23(2017), 1693–1707.* DOI: 10.1177/1077546315599679



580. T. Pourseif, A. Afzalian. Pitch angle control of wind turbine systems in cold weather conditions using  $\mu$  robust controller. *International Journal of Energy and Environmental Engineering*, 2017, 11 p.. DOI 10.1007/s40095-017-0231-y
581. T. Yin, D. Huang. Adaptive decision and robust control under parallel precedence constraints in human strategy modeling. *IEEE Access*, 2017. DOI: 10.1109/ACCESS.2017.2703925
582. I. Kardan, A. Akbarzadeh. Robust output feedback assistive control of a compliantly actuated knee exoskeleton. *Robotics and Autonomous Systems* (2017).  
<http://dx.doi.org/10.1016/j.robot.2017.09.006>
583. F. Mesquine, H. Khallouk. Robust control of a DC-DC buck converter. *2017 18th International Conference on Sciences and Techniques of Automatic Control and Computer Engineering (STA)*, 21-23 Dec. 2017, Monastir, Tunisia. IEEE, 2018. DOI: 10.1109/STA.2017.8314873
584. N. Nikolaev. An algorithm for fast determining the point of collapse of power flow equations based on singular value decomposition. *2017 15th International Conference on Electrical Machines, Drives and Power Systems (ELMA)*, 1-3 June 2017, Sofia, Bulgaria. IEEE, 2017. DOI: 10.1109/ELMA.2017.7955417
585. R.L. Pereira, K.H. Kienitz, F.H.D. Guaracy. Discrete-time static  $H_\infty$  loop shaping control for LPV systems. *2017 25th Mediterranean Conference on Control and Automation (MED)*, 3-6 July 2017, Valletta, Malta. IEEE, 2017. DOI: 10.1109/MED.2017.7984186
586. A. Vasičkaninová, M. Bakošová, L. Čirka, M. Kalúz, J. Oravec. Robust controller design for a laboratory heat exchanger. *Applied Thermal Engineering*, 128(2018), 1297 - 1309.  
<https://doi.org/10.1016/j.applthermaleng.2017.09.086>
587. T. Sikder. *Design of Active Trailer Steering Systems for Long Combination Vehicles using Robust Control Techniques*. A Thesis Submitted for the Degree of Master of Applied Science in Automotive Engineering, The Faculty of Engineering and Applied Science, University of Ontario Institute of Technology, Oshawa, Ontario, Canada, 2017.
588. M.H. Ikram, N. Khan, Fareeha, Waseeullah. Improved performance evaluation of colored Kalman filter for a real-time case study. *2017 13th International Conference on Emerging Technologies (ICET)*, 27-28 Dec. 2017, Islamabad, Pakistan. IEEE, 2018. DOI: 10.1109/ICET.2017.8281658
589. A. Mitov, T. Slavov, J. Králev, I. Angelov. H-infinity control of an electrohydraulic power steering system. *2018 41st International Conference on Telecommunications and Signal Processing (TSP)*, 4-6 July 2018, Athens, Greece. IEEE, 2018. DOI: 10.1109/TSP.2018.8441398
590. A. Estandia, M. Hutter. Robust damping of a ropeway gondola's wind oscillations with an actuated mass. *2017 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, 24-28 Sept. 2017, Vancouver, BC, Canada. IEEE, 2017. DOI: 10.1109/IROS.2017.8206329
591. X. Zhang, K. Hengster-Movric, M. Sebek, W. Desmet, C. Faria. Distributed observer and controller design for spatially interconnected systems. *IEEE Transactions on Control Systems Technology*, 2017. DOI: 10.1109/TCST.2017.2769019
592. L. Jarzebowicz, A. Opalinski. Frequency and time domain characteristics of digital control of electric vehicle in-wheel drives. *Archives of Electrical Engineering*, vol. 66(4), 2017, 829-842. DOI 10.1515/ae-2017-0063
593. O.W. Abdulwahhab, N.H. Abbas. A new method to tune a fractional-order PID controller for a twin rotor aerodynamic system. *Arabian Journal for Science and Engineering*, 42 (2017), 5179-5189. DOI: 10.1007/s13369-017-2629-5

594. L. Koleff, L. Matakas, D. Colon, E. Pellini. H-infinity current control of the LC coupled voltage source inverter. *2017 IEEE Energy Conversion Congress and Exposition (ECCE)*, 1-5 Oct. 2017, Cincinnati, OH, USA. IEEE, 2017. DOI: 10.1109/ECCE.2017.8096896
595. Y. Wu, H.-T. Zhang, T. Huang, G. Ren, H. Ding. Robust chatter mitigation control for low radial immersion machining processes. *IEEE Transactions on Automation Science and Engineering*, 15 (2018), 1972 - 1979. DOI: 10.1109/TASE.2018.2838152
596. A Al-Muhanna, A. Al-Nujaimi, S. Al-Baiyat. Robust  $H_\infty$  and  $\mu$ -synthesis frequency control for two-bus islanded microgrid. *2017 Saudi Arabia Smart Grid (SASG)*, 12-14 Dec. 2017, Jeddah, Saudi Arabia. IEEE, 2018. DOI: 10.1109/SASG.2017.8356513
597. M. Schaeffner, R. Platz. Gain-scheduled  $H_\infty$  buckling control of a circular beam-column subject to time-varying axial loads. *Smart Materials and Structures*, 27 (2018). DOI: 10.1088/1361-665X/aab63a
598. R.P. Pothukuchi, S.Y. Pothukuchi, P. Voulgaris, J. Torrellas. Yukta: multilayer resource controllers to maximize efficiency. *ISCA '18 Proceedings of the 45th Annual International Symposium on Computer Architecture, Los Angeles, California, June 02 - 06, 2018*. ACM, 2018, 505-518. doi:10.1109/ISCA.2018.00049
599. E. Lee, S. Kapoor, T. Siger, Y. He. An optimal robust controller for active trailer differential braking systems of car-trailer combinations. *International Journal of Vehicle Systems Modelling and Testing*, 12 (2017), 72 - 93. DOI: 10.1504/IJVSMT.2017.087957
600. P. D'Urso, M. El-Gindy. Development of control strategies of a multi-wheeled combat vehicle. *International Journal of Automation and Control*, 12 (2018). <https://doi.org/10.1504/IJAAC.2018.092849>
601. H. Basak. *Robust Switching Recovery Control of a Quadcopter Aerial Vehicle Model*. PhD Thesis, Control Research Group, Department of Engineering, University of Leicester, UK, 2018.
602. A. Bück, C. Seidel, R. Dürr, C. Neugebauer. Robust feedback control of convective drying of particulate solids. *Journal of Process Control*, 69 (2018), 86-96. <https://doi.org/10.1016/j.jprocont.2018.07.010>
603. F. Hourfar, K. Salahshoor, H. Zambouri, A. Elkamel, P. Pourafshary, B. Moshiri. A systematic approach for modeling of waterflooding process in the presence of geological uncertainties in oil reservoirs. *Computers and Chemical Engineering*, 111 (2018) 66-78. <https://doi.org/10.1016/j.compchemeng.2017.12.012>
604. E. Ahmad, A. ur Rehman, O. Khan, M. Haseeb, N. Ali. Backstepping control design for two-wheeled self balancing robot. *2018 1st International Conference on Power, Energy and Smart Grid (ICPESG)*, 9-10 April 2018, Mirpur Azad Kashmir, Pakistan. IEEE, 2018. DOI: 10.1109/ICPESG.2018.8384494
605. E.I. Veremey. Special spectral approach to solutions of SISO LTI  $H$ -optimization problems. *International Journal of Automation and Computing*, 2018. <https://doi.org/10.1007/s11633-017-1110-y>
606. H. Zambouri, K. Salahshoor. Development of robust surrogate model for economic performance prediction of oil reservoir production under waterflooding process. *Journal of Petroleum Science and Engineering* 165 (2018) 496-504. <https://doi.org/10.1016/j.petrol.2018.01.065>
607. A. Mitov, J. Kraleov, I. Angelov. Cascade control algorithm of test bench for studying load-sensing electrohydraulic steering systems. *BulTrans-2018, MATEC Web of Conferences 234, 02006 (2018)*. [https://doi.org/10.1051/matecconf/20182340\\_06](https://doi.org/10.1051/matecconf/20182340_06)

608. F. Asadi. Robust control of DC-DC converters: The Kharitonov's theorem approach with MATLAB codes. *Synthesis Lectures on Power Electronics*, 6 (2018), 1–135.  
DOI: 10.2200/S00868ED1V01Y201807PEL011
609. F. Asadi, S. Pongswatd, K. Eguchi, N.L. Trung. Modeling Uncertainties in DC-DC Converters with MATLAB and PLECS. *Synthesis Lectures on Electrical Engineering*, 3 (2018), 1–292.  
DOI: 10.2200/S00875ED1V01Y201809EEL006
610. Y. Kawai, K. Uchiyama, C.R. McInnes. Design principle of non-switching integral sliding mode controller and applications to aerospace vehicles. *2018 AIAA Guidance, Navigation, and Control Conference, 8–12 January 2018, Kissimmee, Florida*. AIAA, 2018. DOI: 10.2514/6.2018-0857
611. M.I. Solihin, R. Akmeliawati. Robust feedback controller design using cuckoo search optimization to maximize stability radius. In: *Kim JH., Myung H., Lee SM. (eds), Robot Intelligence Technology and Applications. RiTA 2018, Springer Singapore, 2019*.  
DOI [https://doi.org/10.1007/978-981-13-7780-8\\_6](https://doi.org/10.1007/978-981-13-7780-8_6)
612. B. Kiss, N. Wang. Robust exact linearization of a 2D overhead crane. *IFAC-PapersOnLine*, 51 (2018), 354–359. DOI: 10.1016/j.ifacol.2018.11.567
613. M. Yang, Y. Li, H. Du, C. Li, Z. He. Hierarchical multiobjective H-infinity robust control design for wireless power transfer system using genetic algorithm. *IEEE Transactions on Control Systems Technology*, 27(2019), 1753–1761. DOI: 10.1109/TCST.2018.2814589
614. F.-X. Xu, X.-H. Liu, W. Chen, C. Zhou, B.-W. Cao. Improving handling stability performance of four-wheel steering vehicle based on the  $H_2/H_\infty$  robust control. *Applied Sciences*, 9(2019), 1–30. DOI:10.3390/app9050857
615. O. Sushchenko. Automated system of stabilization and position control of aviation equipment. In: *Automated Systems in the Aviation and Aerospace Industries, IGI Global, 2019, 297–330*. ISBN13: 9781522577096, DOI: 10.4018/978-1-5225-7709-6
616. S. Seyedtabaai. A modified FOPID versus  $H_\infty$  and  $\mu$  synthesis controllers: Robustness study. *International Journal of Control, Automation and Systems*, 17 (2019), 639–646.  
<https://doi.org/10.1007/s12555-018-0033-x>
617. R.J. Cavalry, J.R. Forbes. LMI properties and applications in systems, stability, and control Theory. *Cornell University Library, ArXiv e-prints in Systems and Control [cs.SY] 1903.08599v1, 2019, 1–97*. Available at <http://arxiv.org/abs/1903.08599v1>
618. N. Wang, B. Kiss. A robustness study of process control loops designed using exact linearization. *2017 21st International Conference on Process Control (PC), 6–9 June 2017, Strbske Pleso, Slovakia*. IEEE, 2017. DOI: 10.1109/PC.2017.7976180
619. N. Wang, B. Kiss. A method to robustify exact linearization against parameter uncertainty. *International Journal of Control, Automation and Systems*, 17 (2019), 2441–2451.  
DOI: 10.1007/s12555-018-0330-4
620. C. Xia, Q. Sun, X. Li, A.P. Hu. Robust  $\mu$ -synthesis control of dual LCL Type IPT system considering load and mutual inductance uncertainty. *IEEE Access*, 7(2019), 72770–72782.  
DOI: 10.1109/ACCESS.2019.2920411
621. V.H. Haji, A. Fekih, C. A. Monje, R.F. Asfestani.  $H_2$ ,  $H_\infty$ ,  $H_2/H_\infty$ , and  $\mu$ -synthesis controllers for the speed and temperature control of a real gas turbine unit in a combined cycle power plant. *Energy Science & Engineering*, 2019, DOI: 10.1002/ese3.425
622. S. Niederberger, R. Orjuela, M. Basset. Robust control design for electrically driven high-pressure pumps using  $H_\infty$  approach with joint shaping functions. *2019 18th European Control Conference (ECC), Naples, Italy, 25–28 June 2019*. DOI: 10.23919/ECC.2019.8796053

623. R.P. Pothukuchi, S.Y. Pothukuchi, P. Voulgaris, A. Schwing, J. Torrellas. Maya: Falsifying power sidechannels with dynamic control. *Cornell University Library, ArXiv e-prints in Cryptography and Security [cs.CR]* 1907.09440v2, 2019, 1-14.  
Available at <http://arxiv.org/abs/1907.09440v2>
624. R.P. Pothukuchi, J.L. Greathouse, P.G. Voulgaris. Tangram: Integrated control of heterogeneous computers. *MICRO '52 Proceedings of the 52nd Annual IEEE/ACM International Symposium on Microarchitecture, October 12–16, 2019, Columbus, OH, USA*. ACM, NY, 2019, pp. 384-398. DOI: 10.1145/3352460.3358285
625. A. N. Ouda. Scalar  $H_\infty$  autopilot synthesis for control systems and evaluation via HIL simulation. *SN Applied Sciences, Springer Nature Switzerland AG*, 2019. <https://doi.org/10.1007/s42452-019-1400-9>
626. T.V. Phuong. *Designing Adaptive Tracking Controller For Non-Linear MIMO Systems Using CMAC*, PhD Thesis, Ho Chi Minh City Transport University, Ho Chi Minh, Vietnam, 2019.
627. N.V.A. Ravikumar, G. Saraswathi. Robust controller design for speed regulation of a wind turbine using 16-plant theorem approach. *EAI Endorsed Transactions on Energy Web*, 6(2019), DOI: 10.4108/eai.16-10-2019.160841
628. I. Ngamroo. Wide-area damping controllers of wind and solar power using probabilistic signal selection. *IET Renewable Power Generation*, 13(2019), 1351-1359.  
DOI: 10.1049/iet-rpg.2018.5757
629. Q. Feng. *Stability Analysis and Stabilization of Linear Systems with Distributed Delays*, PhD Thesis, The University of Auckland, New Zealand, July 2019.
630. T. Krzyzynski, I. Maciejewski. Computational method for shaping the vibro-isolation properties of semi-active and active systems. *Archives of Mechanics*, 71(2019), 291–313.  
DOI: 10.24423/aom.3098
631. A. Papacharalampopoulos, D. Petrides, P. Stavropoulou. A defect tracking tool framework for multi-process products. *12th CIRP Conference on Intelligent Computation in Manufacturing Engineering (CIRP ICME), Naples, Italy, July 18-20, 2018*. Elsevier, 2019.  
DOI: 10.1016/j.procir.2019.02.100
632. S.J. Zhu, Y.P. He, J. Ren. On robust controllers for active steering systems of articulated heavy vehicles. *International Journal of Heavy Vehicle Systems*, 26(2019), 1–30.  
DOI: 10.1504/IJHVS.2019.097108
633. I.J. Inyang, J.F. Whidborne. Bilinear modelling, control and stability of directional drilling. *Control Engineering Practice*, 82(2019), 161–172. DOI: 10.1016/j.conengprac.2018.10.008
634. И.З. Щур, Т. Я. Дзьоба, П. Й. Голубовський. Людино-машинне керування одновісним двоколісним персональним електричним транспортним засобом за умови лінійного руху. *Electrical Power and Electromechanical Systems. Електроенергетичні та Електромеханічні системи, Вип. 1, 2019*, 74–84. <https://doi.org/10.23939/sepes2019.01.074>
635. Z.-G. Lu, Z. Yang, Q. Huang, X.-C. Wang. Robust active guidance control using the  $\mu$ -synthesis method for a tramcar with independently rotating wheelsets. *Journal of Rail and Rapid Transit*, 233(2019), 33–48. DOI: 10.1177/0954409718777374
636. N. Xuan-Mung, J.-W. Song, S.K. Hong. Quadrotor robust optimal attitude tracking control subjected to model uncertainties and external disturbances. *2019 19th International Conference on Control, Automation and Systems (ICCAS), 15-18 Oct. 2019, Jeju, Korea*. IEEE, 2019.  
DOI: 10.23919/ICCAS47443.2019.8971497

637. F. Ali, N. Khan, M. Ali, H. Ahmad, M.H. Ikram. On the implementation of SMIKF in LTI systems in the presence of colored noise. *2019 International Conference on Applied and Engineering Mathematics (ICAEM)*, 27-29 Aug. 2019, Taxila, Pakistan. IEEE, 2019. DOI: 10.1109/ICAEM.2019.8853669
638. S. Wang, B. Song, L. He. Robust attitude control system design for a distributed propulsion tilt-wing UAV in flight state transition. In: X. Zhang (Ed.), *The Proceedings of the 2018 Asia-Pacific International Symposium on Aerospace Technology (APISAT 2018). Lecture Notes in Electrical Engineering*, vol 459, 2368–2387. Springer, Singapore. DOI: 10.1007/978-981-13-3305-7\_190
639. T.D. Ho, K. Terashima. Robust control designs of payload's skew rotation in a boom crane system. *IEEE Transactions on Control Systems Technology*, 27 (2019), 1608 - 1621. DOI: 10.1109/TCST.2018.2834879
640. N.V.A. Ravikumar, G. Saraswathi. Towards robust controller design using  $\mu$ -synthesis approach for speed regulation of an uncertain wind turbine. *Electrical Engineering*, 102 (2020), 515–527. DOI: 0.1007/s00202-019-00891-w
641. H. Bueno-Contreras, G.E. Ramos, R. Costa-Castelló. Robust  $H_\infty$  design for resonant control in a CVCF inverter application over load uncertainties. *Electronics*, 9 (2020). DOI:10.3390/electronics9010066
642. R.K. Vashisht, Q. Peng. Efficient active chatter mitigation for boring operation by electromagnetic actuator using optimal fractional order  $PD^\lambda$  controller. *Journal of Materials Processing Technology*, 276 (2020). <https://doi.org/10.1016/j.jmatprotec.2019.116423>
643. S. Chakir, J.H. Suh, S. W. Ji, Y.B. Kim. A composite control design for suppressing mutual interference of interconnected systems. *Journal of Mechanical Science and Technology*, 34(2020), 867–875. DOI: 10.1007/s12206-020-0136-1
644. T. Karner. *Uporaba Lomljenih Odvodov za Identifikacijo in Vodenje Dielektričnih Elastomernih Aktuatorjev*, Doktorska disertacija, Faulteta za Strijništvo, Univerza v Mariboru, Slovenia, 2020.
645. A. Köthe, R. Luckner. Outer-loop control law design with control allocation for a multibody aircraft. Technische Universität Berlin, 2020. [https://eurognc19.polimi.it/wp-content/uploads/2019/12/0021\\_FI.pdf](https://eurognc19.polimi.it/wp-content/uploads/2019/12/0021_FI.pdf)
646. E.E.E. Aquino, R. Nagamune.  $H_\infty$  position transfer and regulation for floating offshore wind turbines. *Control Theory and Technology*, 2020. <https://doi.org/10.1007/s11768-020-8280-9>
647. T. Pourseif, M. Mohajeri. Design of robust control for a motor in electric vehicles. *IET Electrical Systems in Transportation*, 10(2020), 68-74. DOI: 10.1049/iet-est.2018.5084
648. C.M.Ionescu, E.H.Dulf, M. Ghita, C.I.Muresan. Robust controller design: Recent emerging concepts for control of mechatronic systems. *Journal of the Franklin Institute*, 357(2020), 7818–7844. <https://doi.org/10.1016/j.jfranklin.2020.05.046>
649. F. Hourfar, L. Khoshnevisan, B. Moshiri, K. Salahshoor, A. Elkamel. Mixed  $H_\infty$ /Passivity controller design through LMI approach applicable for waterflooding optimization in the presence of geological uncertainty. *Computers & Chemical Engineering*, 142 (2020), <https://doi.org/10.1016/j.compchemeng.2020.107055>.
650. L.R. Trajano da Silva, V.A. Fernandes de Campos, A.S. Potts. Robust control for helicopters performance improvement: an LMI approach. *Journal of Aerospace Technology and Management*, 12 (2020). <https://doi.org/10.5028/jatm.v12.1179>

651. P.R. Pradyumna, R. Pothukuchi, S.Y. Pothukuchi, P.G. Voulgaris, J. Torellas. Control Systems for Computing Systems: Making computers efficient with modular, coordinated, and robust control. *IEEE Control Systems Magazine*, 40(2020), 30–55. DOI: 10.1109/MCS.2019.2961733
652. L.F. Gou, Z.D. Liu, D. Fan, H. Zheng. Aeroengine robust gain-scheduling control based on performance degradation. *IEEE Access*, 8(2020), 104857–104869. DOI: 10.1109/ACCESS.2020.2986336
653. H. Aggumus, Rahmi Guclu. Robust  $H_\infty$  control of STMDs used in structural systems by hardware in the loop simulation method. *Actuators*, 9(2020), 1–20. DOI:10.3390/act9030055
654. X. Wu, C. Xu, B. Wei, C. Xia, X. Li,  $H_\infty$  mixed sensitivity robust control method of relay ICPT system for output voltage regulation. *Electrical Engineering*, 103(2021), 781–792. DOI: 10.1007/s00202-020-01116-1
655. C. Xia, X. Li, Q. Sun, Z. Liao, X. Wu. Integrated control method for constant output voltage and maximum efficiency tracking of bilateral LCL compensation ICPT system. *IET Electric Power Applications*, 14(2020), 1956–1965. DOI: 10.1049/iet-epa.2020.0133
656. H. Okasha. *Design of a linear parameter varying control system for a delivery quadrotor*. MSc Thesis, Department of Aerospace Engineering, San José State University, San José, CA, USA.
657. T. Zhong, W. Tang. Robust controller design for ball screw drives with varying resonant mode via  $\mu$ -synthesis. *2020 IEEE 16th International Workshop on Advanced Motion Control (AMC)*, 14–16 Sept. 2020, Kristiansand, Norway. IEEE, 2020. DOI: 10.1109/AMC44022.2020.9244447
658. S. Boonto, S. Puchaisong. Mouse type ballbot identification and control using a convex-concave optimization. *Journal of Marine Science and Technology*, 28 (2020), 404–410. DOI: 10.6119/JMST.202010\_28(5).0010
659. B. Finta, B. Kiss. Two-degree’s-of-freedom controller synthesis to robustify the computed torque method. *2020 23rd International Symposium on Measurement and Control in Robotics (ISMCR)*, 15–17 Oct. 2020, Budapest, Hungary. IEEE, 2020. DOI: 10.1109/ISMCR51255.2020.9263772
660. T. Kerdphol, F.S. Rahman, M. Watanabe, Y. Mitani. Synthesis of robust virtual inertia control. In: *Virtual Inertia Synthesis and Control*. Power Systems book series. Springer, Cham. 2020. [https://doi.org/10.1007/978-3-030-57961-6\\_8](https://doi.org/10.1007/978-3-030-57961-6_8)
661. D.-H. Lee, D.-Q. Tan, Y.-B. Kim, S. Chakir. A robust double active control system design for disturbance suppression of a two-axis gimbal system. *Electronics*, 9 (2020). DOI: 10.3390/electronics9101638
662. Z. Liu, L. Gou, D. Fan. Two degree-of-freedom  $\mu$  controller with low conservativeness for aeroengine. *2020 11th International Conference on Mechanical and Aerospace Engineering (ICMAE)*, 14–17 July 2020, Athens, Greece. IEEE, 2020. DOI: 10.1109/ICMAE50897.2020.9178875
663. L.B.D.E. Rosa, R.L. Pereira. Discrete-time L2 loop-shaping control of a Maglev System using the LPV framework. *Anais da Sociedade Brasileira de Automática*, 2020. DOI: 10.48011/asba.v2i1.1563
664. K. Masuda, K. Uchiyama. Extended model predictive control: robust controller with matching condition. *Transactions of the JSME*, 86 (2020) (in Japanese). DOI: 10.1299/transjsme.19-00300
665. C. Neugebauer. *Modeling, Dynamics and Control of Continuous Fluidized Bed Layering Granulation Processes*, Dissertation zur Erlangung des akademischen Grades Doktoringenieur (Dr.-Ing.), Fakultät Elektrotechnik und Informationstechnik der Otto-von-Guericke-Universität Magdeburg, Germany, 2020.

666. J. Velagic, A. Osmanović, D. Koluh, A. Karzić. Adaptive control of hard disk drive servo system. *2020 International Symposium ELMAR, 14-15 Sept. 2020, Zadar, Croatia*. IEEE, 2020. DOI: 10.1109/ELMAR49956.2020.9219044
667. T.C.F. Pinheiro, A.S. Silveira. Constrained discrete model predictive control of an arm-manipulator using Laguerre function. *Optimal Control. Applications and Methods, 2020*. DOI: 10.1002/oca.2667
668. R. Jirasek, T. Schauer, A. Bleicher. Active vibration control of a convertible structure based on a polytopic LPV model representation. *IFAC PapersOnLine, 53(2020), 8389–8394*. DOI: 10.1016/j.ifacol.2020.12.1590
669. B. Rakov, G. Ruzhekov. Two degree of freedom control of MIMO plant using PID and decoupling matrix. *2020 International Conference Automatics and Informatics (ICAI), 1-3 Oct. 2020, Varna*. IEEE, 2021. DOI: 10.1109/ICAI50593.2020.9311342
670. D.M. Devia-Narváez, R. Ospina-Ospina, D.F. Devia-Narváez. Desing of controller  $H_\infty$  with unstructured uncertainty, for a boost DC - DC converter. *Revista UIS Ingenierias, 20 (2021), 45–52*. DOI: 10.18273/revuin.v20n2-2021004
671. С.М. Балюта, П.О. Черненко, Ю.В. Куєвда, В.П. Куєвда. Ідентифікація математичної моделі турбоагрегата з наявністю невизначеності, *Технічна Електродинаміка, 2021*. DOI: <https://doi.org/10.15407/techned2021.01.032>
672. J.P. Belletti Araque, A. Zavoli, D. Trotta, G. De Matteis. Advanced H-infinity synthesis for launch vehicle attitude control in atmospheric flight. *AIAA Scitech 2021 Forum, AIAA 2021-1217, 2021*. DOI: 10.2514/6.2021-1217
673. H. Yang, R. Morales. Robust full-envelope flight control design for an eVTOL vehicle. *AIAA Scitech 2021 Forum, AIAA 2021-0254, 2021*. DOI: 10.2514/6.2021-0254
674. Б.Й. Раков. *Проектиране и реализация на многомерни ПИД регулатори*. Дисертационен труд за присъждане на образователна и научна степен “доктор”. Технически университет - София, Факултет “Автоматика”, 2021.
675. J. Nemcik, F. Krupa, S. Ozana, L. Hubka, Z. Slanina. Educational case study on H-infinity robust performance design. *Tehnički vjesnik, 28(2021), 481–487*. DOI: 10.17559/TV-20200124132757

**P.Hr. Petkov, N.D. Christov, M.M. Konstantinov.** *Computational Methods for Linear Control Systems*. Prentice Hall, Hemel Hempstead, UK, 1991.

676. D.-W. Gu, B.-W. Choi, I. Postlethwaite. *Low-order  $H_\infty$  Sub-Optimal Controllers*. Rep. LUED 92-19, Department of Engineering, Leicester University, Leicester, UK 1992.
677. D. Gu, B. Choi, I. Postlethwaite. Low order stabilizing controllers. *IEEE Transactions on Automatic Control, 38 (1993), 1713-1717*.
678. A. Varga. “Computational Methods for Linear Control Systems”. Book review, *Automatica, 29 (1993), 568-570*.
679. A. Varga. Computational techniques based on the block-diagonal form for solving large systems modeling problems. *Proc. 1993 IEEE Conf. IEEE Aero Space Control Syst., Westlake Village, CA 1993, 693-697*
680. L. Shieh, J. Gu, Y. Bao. Model conversions of uncertain linear linear systems using the Pade and inverse-Pade method. *IEE Proceedings – Control Theory and Applications, 140 (1993), 455-464*.

681. B. Choi. *Controller Size Reduction in Advanced Control System Design*. Ph.D. Thesis, Dept. Eng., Leicester University, Leicester 1993.
682. T. Gudmundsson, C. Kenney, A. Laub. Comments on "Scaling of the discrete-time algebraic Riccati equation to enhance stability of the Schur solution" - Authors' Reply. *IEEE Transactions on Automatic Control*, 38 (1993), 1160.
683. T.J. Owens, J.F. Marsh. Some computational issues in optimal control by nonlinear programming. *Annals of Operations Research*, 43 (1993), 249-257.
684. В. Ангелова. *Пертурбационен анализ на линейни многомерни системи за управление*. Канд. дис., ИИТ-БАН, С. 1993.
685. B. Datta. Linear and numerical linear algebra in control theory: Some research problems. *Linear Algebra and its Applications*, 198 (1994), 755-790.
686. B. Datta. Recent developments in large-scale and parallel matrix computations and their applications to linear control problems. *Proc. 33rd IEEE Conf. Dec. Control, Lake Buena Vista, FL 1994*, 438-442.
687. "Numerical Linear Algebra Techniques for Systems and Control", *A Selected Reprint Volume* (R. Patel, A. Laub, P. Van Dooren, eds.), IEEE Press, New York, 1994, 1-35. ISBN 0-7803-0443-8.
688. D. Di Ruscio. *Topics in Model Based Control with Application to the Thermo Mechanical Pulping Process*. Dr.ing. thesis, Department of Engineering Cybernetics, Norwegian Institute of Technology, Rep. 93-46-W, Trondheim, 1994.
689. В. Ангелова. Чувствителност на линейна дискретна система - оценяване на точността на решението. *Автоматика и Информатика*, 1995, 2, 13-16.
690. A. Linnemann. An algorithm to compute state feedback matrices for multi-input deadbeat control. *Systems and Control Letters*, 25 (1995), 99-102.
691. R. Berber (Ed.) *Methods of Model Based Process Control*, NATO ASI Series, Series E: Applied Sciences, vol. 293, Kluwer Academic Publishers, Dordrecht, 1995. ISBN 0-7923-3524-4
692. J.L. Mendoza Zabala. *State-Space Formulation for Structural Dynamics*. MSc Thesis, Dept. of Civil and Environmental Engineering, Massachusetts Institute of Technology, 1996.
693. P. Suchomski. A recursive method for model order reduction of discrete-time systems via q-Markov covariance equivalent realizations. *Systems Analysis Modelling Simulation (SAMS)*, 23 (1996), 127-135. ISSN: 0232-9298
694. E. Quintana-Orti. *Algoritmos Paralelos para Resolver Ecuaciones Matriciales de Riccati en Problemas de Control*. PhD Thesis, Departamento de Sistemas Informáticos y Computación, Universidad Polytécnica de Valencia, Valencia, Spain 1996.
695. H. Oloomi, B. Shafai. Constrained stabilization problem and transient mismatch phenomena in singularly perturbed systems. *Proc. 35th IEEE Conference on Decision and Control, Kobe 1996*, 552-557.
696. J. Lam, W. Yan. Pole assignment with optimally conditioned eigenstructure. *Proc. 35th IEEE Conference on Decision and Control, Kobe 1996*, 2008-2013.
697. J. Lam, H. Tso, N. Tsing. On the design of robust deadbeat regulators. *Proc. 35th Conference on Decision and Control, Kobe 1996*, 3080-3085.
698. J. Kawelke, A. Linnemann, D. Gu, I. Postlethwaite.  $H_\infty$  - Norm: Conditioning and Hamiltonian Eigenvalues. Rep. LUED 96-16, Department of Engineering, Leicester University, Leicester, UK 1996.



699. J. Kawelke, A. Linnemann, D. Gu, I. Postlethwaite. *A Numerically Stable Algorithm for Computing the  $H_\infty$ -Norm*. Rep. LUED 96-17, Leicester Univ., Leicester 1996.
700. E. Anderson, L. Hansen, E. McGrattan, T. Sargent. On the mechanics of forming and estimating dynamic linear economies. In "*Handbook of Computational Economics*" (H. Amman, D. Kendrick, J. Rust, eds.), Elsevier Sci., Amsterdam 1996, 171-252. Available at <http://minneapolisfed.org/research/sr/sr198.pdf>
701. D. Di Ruscio, J. Balchen. A state-space model for the wood chip refining process. *Journal of Pulp and Paper Science*, 22 (1996), J104-J112. ISSN: 0826-6220
702. D. Di Ruscio. *System Theory, State Space Analysis and Control Theory*. Rapport Institutt for prosessregulering Avdeling for teknologiske fag. Høgskolene i Telemark, Porsgrunn, Norway, 1996, 2009.
703. V. Sima. *Algorithms for Linear-Quadratic Optimization*. Marcel Dekker, Inc., New York, 1996 (ISBN 0-8247-9612-8).
704. Z. Gajic, M. Lelic. *Modern Control System Engineering*. Prentice Hall Int., London, 1996 (ISBN 0-13-134116-2).
705. D. Boley, B. Datta. Numerical methods for linear control systems. In "*Systems and Control in the 21 Century*" (C. Byrness et al., eds.), *Progress in Systems and Control Theory*, **22**, Birkhäuser, Boston 1997, 51-74.
706. H. Bofill. *Algoritmos Secuenciales y Paralelos para la Estabilizacion de Sistemas Lineales de Control utilizando Librerias Software Estandar de Algebra Lineal*. PhD Thesis, Fac. Inf., Univ. Politecn. Valencia, 1997.
707. V. Hernandez, E.S. Quintana-Orti. Stabilizing large control linear systems on multicomputers. *Proc. Int. Conf. Vector and Parallel Proc. VECPAR '96*, Springer Verlag, *Lect. Notes Comp. Sci.*, 1215 (1997), 338-364.
708. D.G. López. *Sistemas Lineales de Control utilizando Librerias Software Estandar de Algebra Lineal*. PhD Thesis, Fac. Inf., Univ. Politecn. Valencia, 1997.
709. P. Benner. *Contributions to the Numerical Solution of Algebraic Riccati Equations and Related Eigenvalue Problems*. Logos Verlag, Berlin, 1997. ISBN: 3-931216-70-5
710. В. Ларин. Решение уравнения Риккати, гамильтонова матрица которого имеет собственные значения на мнимой оси. *Пробл. управл. информ.*, 6 (1997), 14-26.
711. J.M. Casals Carro. *Metodos de Subespacios en Econometria*. Phd Thesis, Departamento de Economía Cuantitativa, Facultad de Ciencias Económicas y Empresariales, Universidad Complutense de Madrid, 1997.
712. J. Casals, S. Sotoca. Exact initial conditions for maximum likelihood estimation of state space models with stochastic inputs. *Economics Letters*, 57 (1997), 261-267.
713. L. Shieh, W. Wang, J. Zheng. Robust control of sampled-data uncertain systems using digitally redesigned observer-based controllers. *International Journal of Control*, 66 (1997), 43-64.
714. J. Lam, H. Tso, N. Tsing. Robust deadbeat regulation. *International Journal of Control*, 67 (1997), 587-602.
715. J. Lam, W. Yan. Pole assignment with optimal spectral condition. *Systems and Control Letters*, 29 (1997), 241-253.
716. D. Di Ruscio, J. Balchen. A state-space model for the wood chip refining process. *Modeling, Identification and Control*, 18 (1996), 219-237. ISSN: 1890-1328

717. H. Oloomi, B. Shafai. Constrained stabilization problem and transient mismatch phenomenon in singularly perturbed systems. *International Journal of Control*, 67 (1997), 435-454.
718. P. Benner, E. Quintana-Orti. Solving stable generalized Lyapunov equations with the matrix sign function. Prep. SFB393/97-23, TU-Chemnitz, Chemnitz, 1997.
719. I. Kawelke. *Perturbation and Error Analysis Considerations in Robust Control*. Ph.D. Thesis, Dept. Eng., Leicester University, Leicester 1997.
720. S. Lesecq. *Solveur exact et conditionnement pour une class de problèmes en commande*. These Doct., Laboratoire d'Automatique de Grenoble, France, 1997.
721. E. Quintana-Orti, V. Hernandez. Parallel solution of Riccati matrix equations with the matrix sign function. *Automatica*, 34 (1998), 151-156.
722. J. Casals, S. Sotoca, M. Jerez. Un algoritmo rapido para evaluar la verosimilitud exacta de modelos VARMAX periodicos. *Estadistica Espanola*, 40(1998), 269-291.
723. F. Aliev, V. Larin. *Optimization of Linear Control Systems. Analytical Methods and Computational Algorithms*. Gordon and Breach Science Publishers, Amsterdam 1998 (ISBN 90-5699-113-2).
724. E. Quintana-Orti, R. van der Geijn. *Parallel Solution of Selected Problems in Control Theory*. CS-Technical Report 98-28, Dept. Comp. Sci., Univ. of Texas at Austin, 1998. Available at <http://www.cs.utexas.edu/users/plapack/papers/TR-98-28.ps.Z>
725. A. Bhaya. Real matrices with positive determinant are homotopic to the identity. *SIAM Review*, 40 (1998), 335-340.
726. P. Benner. *Computational methods for linear-quadratic optimization*. Report 98-04, Zentrum für Technomath., Univ. Bremen, 1998.
727. P. Benner, R. Byers, E. Quintana-Orti, G. Quintana-Orti. *Solving algebraic Riccati equations on parallel computers using Newton's method with exact line search*. Report 98-05, Zentrum für Technomath., Univ. Bremen, 1998.
728. H. Fassbender. *Symplectic Methods for Symplectic Eigenproblems*. Hab. Schrift, Fach. 3 Math. Inform., Univ. Bremen, Bremen 1998.
729. A.M.A. Hamdan. The SVD of system matrices and modal properties in a two-area system. *Electric Machines and Power Systems*, 26 (1998), 671-684. ISSN: 0731-356X, DOI: 10.1080/07313569808955850
730. K.A. Nadsady. *A Two-Stage Method for System Identification from Time Series*. MSc Thesis, Ohio University, 1998.
731. Л. Сотиров. *Избрани глави от съвременната теория на управлението*. Издателство на ТУ-Варна, Варна 1998. ISBN: 954-20-0085-5
732. P. Benner. Review on the book *Algorithms for Linear-Quadratic Optimization* by Vassile Sima. *Mathematics of Comput.*, 67 (1998), 449-453.
733. M. Kono, N. Takahashi. Numerical solution of discrete-time Sylvester equation. *Memoirs of the Faculty of Engineering, University of Miyazaki, Japan*, 27(1998), 309-310. ISSN: 05404924 <http://hdl.handle.net/10458/2908>
734. M. Castillo-Catalan, G. Quintana-Orti, V. Hernandez, E.S. Quintana-Orti. Block-partitioned algorithms for the pole assignment problem of single-input systems. *5th IFAC Conference on System Structure and Control 1998 (SSC 98), Nantes, France, July 08-10, 1998*.

735. V. Larin. An algorithm for solving the algebraic Riccati equation. *Journal of Computer and Systems Sciences International*, 38 (1999), 526-535. ISSN: 1064-2307
736. V. Larin. Algorithm for solving algebraic Riccati equation which has singular Hamiltonian matrix. *Systems and Control Letters*, 36 (1999), 231-239.
737. V. Larin. Generalized matrix sign function algorithm for algebraic Riccati equation. *Proceedings of the 14th World IFAC Congress, Beijing 1999, vol. D, paper D-2b-05-1, 141-146*. ISBN: 0-08-0432484
738. P. Benner, H. Fassbender. *A hybrid method for the numerical solution of discrete-time algebraic Riccati equations*. Report 99-12, Zentrum für Technomath., University of Bremen, Bremen 1999.
739. P. Benner. Computational methods for linear-quadratic optimization. *Rendiconti del Circolo Matematico di Palermo, Ser. II* (1999), 21-56.
740. P. Benner, J. Claver, E. Quintana-Orti. Parallel distributed solvers for large stable generalized Lyapunov equations. *Parallel Processing Letters*, 9 (1999), 147-158. ISSN: 0129-6264
741. P. Benner, E. Quintana-Orti. Solving stable generalized Lyapunov equations with the matrix sign function. *Numerical Algorithms*, 20 (1999), 75-100.
742. V. Mehrmann, H. Xu. *Numerical Methods in Control, from Pole Assignment via Linear Quadratic to  $H_\infty$  Control*. Prep. SFB393/99-12, TU-Chemnitz, Chemnitz 1999. Available at <http://www.tu-chemnitz.de/sfb393/Files/PS/sfb99-12.ps.gz>
743. P. Benner, R. Byers, V. Mehrmann, H. Xu. Numerical methods for linear quadratic and  $H_\infty$  control problems. In *Dynamical Systems, Control, Coding, Computer Vision. Progress in Systems and Control Theory*, 25, G. Picci, D.S. Gillian, Eds., Birkhäuser Verlag, Boston 1999, 203-222. ISBN: 3-7643-6060-7
744. P. Benner, R. Byers, V. Mehrmann, H. Xu *Numerical Solution of Linear-Quadratic Control Problems for Descriptor Systems*. Proceedings of the IEEE Conference on Computer Aided Control Systems Design, Hawaii, August 1999, IEEE (CD Rom).
745. E.A. Antúnez, V.H. García, J.J. Ibañez González. Un algoritmo paralelo para el cálculo de exponenciales de matrices e integrales con exponenciales de matrices. *X-Jornadas de Paralelismo, La Manga del Mar Menor - Murcia, Septiembre, 1999*.
746. В. Ларин. Об одном алгоритме решения алгебраического уравнения Риккати. *Изв. АН РФ. Теория и с-мы управления*, 4 (1999), 24-33.
747. P. Suchomski. Structural properties of solutions of continuous-time and discrete-time matrix Lyapunov equations in controllable form. *IEE Proceedings – Control Theory and Applications*, 146 (1999), 477-483.
748. J. Lam, W. Yan, T. Hu. Pole assignment with eigenvalue and stability robustness. *International Journal of Control*, 72 (1999), 1165-1174.
749. H. Tam, J. Lam. An optimal differential sensitivity approach to pole assignment for structurally perturbed systems. *Journal of Dynamic Systems, Measurement, and Control – Transactions of the ASME*, 121 (1999), 410-417.
750. Y. Su, A. Bhaya. On iterative solvers of the matrix equation  $X + A^T X^{-1} A = I$ . *Proceedings of the 38th IEEE Conference on Decision and Control, 07 Dec. 1999-10 Dec. 1999, Phoenix, AZ. IEEE, 1999, vol. 3, 2744 - 2749*. ISBN: 0-7803-5250-5, DOI: 10.1109/CDC.1999.831347
751. G. Martinez, G. Fabregat, V. Hernandez. A systolic library for solving matrix equations, *Proceedings of the 25th Euromicro Conference, 1999, vol.1, 1120*.

752. P. Benner, R. Byers, V. Mehrmann, H. Xu. *Numerical Computation of Deflating Subspaces of Embedded hamiltonian Pencils*, Preprint SFB393/99-15, Technische Universitat Chemnitz, 1999.
753. P. Suchomski. Stability Robustness bounds for LQG continuous-time control systems with unstructured uncertainties. *SAMS*, 36 (2000), 401-440.
754. V. Larin. Generalized matrix sign function algorithm for algebraic Riccati equations. *Stability and Control: Theory and Applications (SACTA)*, 3 (2000), 126-137.
755. M. Cawood, C. Cox. Perturbation analysis for eigenstructure assignment of linear multi-input systems. *Electronic Transactions on Numerical Analysis (ETNA)*, 11 (2000), 25-42. Available at <http://etna.mcs.kent.edu/vol.11.2000/pp25-42.dir/pp25-42.ps>
756. V. Mehrmann, H. Xu. Numerical methods in control. *Journal of Computational and Applied Mathematics*, 123 (2000), 371-394.
757. P. Benner, R. Byers, E. Quintana-Orti, G. Quintana-Orti. Solving algebraic Riccati equations on parallel computers using Newton's method with exact line search. *Parallel Computing*, 26 (2000), 1345-1368.
758. P. Benner. *Numerische Methoden der Steuerungs- und Regelungstheorie*. Zentrum für Technomat., VAK 03-218, Univ. Bremen, Bremen 2000.
759. D. Di Ruscio. *System-Teori Tilstandsromanalyse og Prosesstregulering*. Rap. Inst. Pros. Avd. Tekn. Hogsk. Telemark, Porsgrunn, Norway, Aug. 2002.
760. S.C. Shah, P. Pandey. *Method of computer-aided design of a product or process*. Voyan European Software Patent EP1032907, 06.09.2000.
761. Л. Сотиров. *Теория на автоматичното управление. Част II. Теория на дискретните системи за автоматично управление*. Издателство на ТУ–Варна, Варна 2000. ISBN: 954-20-0142-8
762. Л. Сотиров. *Синтез на дискретни системи за автоматично управление*. Дисертационен труд, представен за получаване на научната степен “доктор на техническите науки”, ТУ–Варна, Варна 2000.
763. P.M.Bainum, A. Strong, Z. Tan. *Control of Formation Flying Satellites*. Final Technical Report 002 AD, Department of Mechanical Engineering, Howard University, Washington D.C., 15 Jun 2000.
764. J. Casals, S. Sotoca. The exact likelihood for a state space model with stochastic inputs. *Computers & Mathematics with Applications*, 42 (2001), 199-209.
765. M. Castillo, E.S. Quintana-Orti, G. Quintana-Orti, V. Hernandez. Parallel pole assignment of single-input systems. *Proceedings of the 4th International Conference on Vector and Parallel Processing, Porto, Portugal 2000*, J. Palme, J. Dongarra, V. Hernandez (Eds.), Springer Verlag, *Lecture Notes in Computer Science (LNCS)*, 1981 (2001), 395-402.
766. G. Martinez, G. Fabregat, V. Hernandez. Solving the generalized Sylvester equation with a systolic library. *Proceedings of the 4th International Conference on Vector and Parallel Processing, Porto, Portugal 2000*, J. Palme, J. Dongarra, V. Hernandez (Eds.), Springer Verlag, *Lecture Notes in Computer Science*, 1981 (2001), 403-416.
767. P. Benner. Symplecting balancing of Hamiltonian matrices. *SIAM Journal on Scientific Computing*, 22 (2001), 1885-1904.

768. P. Benner, R. Byers, R. Mayo, E. Quintana-Orti. *Parallel Algorithms for LQ Optimal Control of Discrete-Time Periodic Linear Systems*. Reprint 01-02, Zentrum für Technomath., Univer. Bremen, Bremen 2001.
769. H. Fassbender, P. Benner. A Hybrid Method for the Numerical Solution of Discrete-Time Algebraic Riccati Equations. *Contemporary Mathematics, AMS Contemp. Math. Ser.*, 280 (2001), 255-269.
770. P. Suchomski. Numerical conditioning of delta-domain Lyapunov and Riccati equations. *IEE Proceedings – Control Theory and Applications*, 148 (2001), 497-501.
771. D. Chu. A case-study for the open question – Disturbance decoupling problem for singular systems by output-feedback. *IEEE Transactions on Automatic Control*, 46 (2001), 1924-1930.
772. E. Quintana-Orti, G. Quintana-Orti, M. Castillo, V. Hernandez. Efficient algorithms for the block-Hessenberg form. *The Journal of Supercomputing*, 20 (2001), 55-66.
773. M.A. Hasan, A.A. Hasan, K. Ben Ejaz. Parallel methods for computing the matrix sign function with applications to the algebraic Riccati equation. *Proceedings of the 40th Conference on Decision and Control, Orlando, FL, Dec. 04-07, 2001*, 4063-4068. IEEE, 2001.  
DOI: 10.1109/CDC.2001.980813
774. Y.S. Suh. Stability of time delay systems using numerical computation of argument principles. *Proceedings of the 40th Conference on Decision and Control, Orlando, FL 2001*, 4738-4743 (CD Rom).
775. A. Linnemann. Reglersynthese mit Hilfe linearer Ungleichungen. *at-Automatisierungstechnik*, 49(2001), 177-185.
776. P. Benner, R. Byers, R. Mayo, E. Quintana-Orti, V. Hernandez. Parallel algorithms for LQ optimal control of discrete-time periodic linear systems. *Journal of Parallel and Distributed Computing*, 62(2002), 306-325.
777. P. Benner, R. Byers, V. Mehrmann, H. Xu. Numerical computation of deflating subspaces of skew-Hamiltonian/Hamiltonian pencils. *SIAM Journal on Matrix Analysis and Applications*, 24 (2002), 165-190.
778. P. Benner, V. Mehrmann, H. Xu. Perturbation analysis of the eigenvalue problem of a formal product of matrices. *BIT*, 42 (2002), 1-43.
779. H. Fassbender. *Symplectic Methods for the Symplectic Eigenproblem*. Kluwer Academic/Plenum Publishers, New York 2002. ISBN: 978-0-306-46478-2
780. V. Mehrmann. Numerical methods for eigenvalue and control problems. In: *Frontiers in Numerical Analysis, J.F. Blowey, A.W. Craig and T. Shardlow, Eds., Springer Verlag, Berlin, 2003*, 303-349. ISBN: 978-3-540-44319-3
781. J. Falnes. *Ocean Waves and Oscillating Systems: Linear Interactions Including Wave-Energy Extraction*. Cambridge University Press, Cambridge, UK, 2002. ISBN-13: 9780521782111, ISBN-10: 0521782112.
782. D. Chu, R. Tan. Numerically reliable computing for the row by row decoupling problem with stability. *SIAM Journal on Matrix Analysis and Applications*, 23 (2002), 1143-1170.
783. E. Davison. *EC410F Control Systems*. Dept. Electr. Comp. Eng., Univ. Toronto, Toronto. Available at <http://www.control.utoronto.ca/people/profs/ted/ece410f.html>, 2002.
784. J. Casals, M. Jerez, S. Sotoca. An exact multivariate model-based structural decomposition. *Journal of the American Statistical Association*, 97 (2002), 553-564.

785. J. Zúñiga, D. Henrion. *Comparison of Algorithms for Computing Infinite Structural Indices of Polynomial Matrices*. Technical Report, LAAS, Centre Nat. Rech. Sci., Toulouse, France 2002.
786. L. Hansen, T. Sargent. *Robust control of forward-looking models*. University of Chicago, New York University and Hoover Institution, 2002, 24 pp. Available at <https://files.nyu.edu/ts43/public/research/king6.pdf>
787. V. Tsachouridis. *A Unified Framework for the Numerical Solution and Analysis of Generalized Algebraic Quadratic Matrix Equations with Engineering and Scientific Applications. Theory and Software Design and Implementation*. PhD Thesis, University of Leicester, Leicester, UK 2002.
788. P. Suchomski. Numerically robust delta-domain solutions to discrete-time Lyapunov equations. *Systems and Control Letters*, 47 (2002), 319-326.
789. V.B. Larin. Algorithm of J-factorization of rational matrices with zeros and poles on the imaginary axis. *International Journal of Mathematics and Mathematical Sciences*, 2003(2003), 2873-2885. ISSN: 0161-1712
790. M. Jerez, S. Sotoca. *Advanced Topics in Econometrics*. Dept. Econom. Cuant., Univ. Complutense de Madrid, Madrid . Available at <http://www.ucm.es/info/ecocuan/mjm/ssdoct>
791. F. Aliev, V. Larin. Special cases in optimization problems for stationary linear closed-loop systems. *International Applied Mechanics*, 39 (2003), 251-273. ISSN: 1063-7095
792. L.P. Hansen, T.J. Sargent. *Robust Control and Model Uncertainty in Macroeconomics*, University of Chicago, New York University and Hoover Institution, 2003, 393 pp. Available at <http://pages.stern.nyu.edu/~dbackus/Exotic/1Robustness/HS%20robust%20ms%20Nov%2003.pdf>
793. P.M. Van Dooren. *Numerical Linear Algebra for Signals Systems and Control*. Draft notes prepared for the Graduate School in Systems and Control, University of Louvain, Louvain-la-Neuve, Belgium, 2003. Available at <http://www.inma.ucl.ac.be/~vdooren/PVDnotes.pdf>
794. Y.S. Suh. Stability of time delay systems using numerical computation of argument principles. *International Journal of Control, Automation, and Systems*, 1(2003), 127-133. ISSN: 1598-6446
795. E.A. Antúnez. *Algoritmos de Altas Prestaciones para la Simulación, Estimación y Control de Sistemas No Lineales*. Memoria que para optar al grado de Doctor en Ingeniería Informática, Universidad Politécnica de Valencia, Valencia, España, 2003.
796. M.M. Villanueva. *Algoritmos Paralelos en Problemas de Control y Tratamiento de la Señal: Computación de los Valores Singulares del Producto de dos Matrices y sus Aplicaciones*. Tesis Doctoral, Departamento de Sistemas Informáticos y Computación, Universidad Politécnica de Valencia, Valencia, España, 2003.
797. P. Benner, H. Mena. BDF methods for large-scale differential Riccati equations. *Proceedings of the Sixteenth International Symposium on Mathematical Theory of Network and Systems, Katholieke Iniversiteit Leuven, Belgium, July 5-9, 2004*.
798. Z. Kowalczyk, P. Suchomski. Optimal detection observers based on eigenstructure assignment. In *Fault Diagnosis. Models, Artificial Intelligence, Applications (J. Korbicz, J.M. Kościelny, Z. Kowalczyk, W. Cholewa, Eds.)*, Springer, Berlin 2004, Ch. 6, 219-259. ISBN: 978-3-642-62199-4 (Print) 978-3-642-18615-8 (Online)
799. P. Benner, D. Kressner, V. Mehrmann. Skew-Hamiltonian and Hamiltonian eigenvalue problems: Theory, algorithms, and applications. *Proceedings of the Conference on Applied Mathematics and Scientific Computing Brijuni (Chroatia), June 23-27, 2003*. Z. Drmac, M. Marusic, and Z. Tutek, Eds., Springer-Verlag, 2005, 3-39. DOI: 10.1007/1-4020-3197-1\_1

800. N. Karcanias, M. Mitrouli. System theoretic based characterization and computation of the least common multiple of a set of polynomials. *Linear Algebra and its Applications* 381 (2004), 1-23.
801. P. Benner. Solving large-scale control problems. *IEEE Control Systems Magazine*, 24 (2004), 44-59.
802. D. Henrion, C. Prieur, S. Tliba. *Improving conditioning of polynomial pole placement problems with application to low-order controller design for a flexible beam*, LAAS-CNRS Research Report No. 04163, Feb. 2004.
803. D. Kreßner. *Numerical Methods and Software for General and Structured Eigenvalue Problems*. PhD Thesis, Technical University of Berlin, 2004.
804. J. Lam, H.K. Tan. Robust eigenstructure assignment with minimum supspace separation. *International Journal of Robust and Nonlinear Control*, 14 (2004), 1227-1253.
805. N. Dogan, H. Sayan, O. Akin, F. Aliev. Conditioning and sensitivity analysis of two-point boundary value problem for the system of linear differential equations with constant coefficients. In *Dynamics of Non-homogeneous Systems (Yu.S. Popkov, Ed.)*, *Proc. Inst. Systems Analysis of Russ. Acad. Sci.*, vol. 7 (2004), 42-55.
806. L.P. Hansen, T.J. Sargent. *Misspecification in Recursive Macroeconomic Theory*, University of Chicago, New York University and Hoover Institution, 2004, 404 pp. Available at [http://pages.stern.nyu.edu/~dbackus/Exotic/1Robustness/HS\\_robust\\_ms\\_Jan\\_04.pdf](http://pages.stern.nyu.edu/~dbackus/Exotic/1Robustness/HS_robust_ms_Jan_04.pdf)
807. B.N. Datta. *Numerical Methods for Linear Control Systems*. Elsevier, Amsterdam 2004 (ISBN: 0-12-203590-9).
808. К.П. Стоилова. *Неутеративна координация с предсказване*. Дисертация, представена за присъждане на научната степен “доктор на техническите науки”, ИККС-БАН, С. 2005.
809. D. Kressner. *Numerical Methods for General and Structured Eigenvalue Problems*. Springer-Verlag, Berlin, 2005. (ISBN-10 3-540-24546-4, ISBN-13 978-3-540-24546-9).
810. S. Johansson. *Canonical forms and stratification of orbits and bundles of system pencils*. Report UMINF-05.16, Dept. Computer Sci., Umeå University, Umeå, Sweden, 2005. ISSN-0348-0542.
811. S. Johansson. *Stratification of Matrix Pencils in Systems and Control: Theory and Algorithms*. Licentiate Thesis, Dept. Computer Sci., Umeå University, Umeå, Sweden, 2005.
812. F.A. Pellegrino. *Constrained and Optimal Control*. PhD Thesis, University of Udine, Italy, 2005.
813. J.C. Zúñiga Anaya. *Algorithmes Numérique pour les Matrices Polynomiales avec Applications en Commande*. PhD Thesis, Institute National des Sciences Appliquées de Toulouse, France, 2005.
814. V.A. Tsachouridis, B. Kouvaritakis. The homogeneous projective transformation of general quadratic matrix equations. *IMA Journal of Mathematical Control and Information*, 22 (2005), 517-540.
815. D. Kressner. On the use of larger bulges in the QR algorithm. *Electronic Transactions on Numerical Analysis*, 20 (2005), 50-63. ISSN 1068-9613
816. S. Carlos Hernandez. *Strategie de Commande Integree Intelligente de Procèdes de Traitment des Eaux Usées par la Digestion Anaérobie*. PhD Thesis, Institute National Polytechnique de Grenoble, France, 2005.

817. K.A. Sattar. Damping of low frequency power oscillations using improved pole-assignment controller. *Electric Power Components and Systems*, 34 (2006), 233-248. ISSN: 1532-5008
818. F. Blanchini, F.A. Pellegrino. Relatively optimal control with characteristic polynomial assignment and output feedback. *IEEE Transactions on Automatic Control*, 51 (2006), 183-191.
819. V. Tsachouridis. Numerical analysis of general scaled quadratic matrix equations. *Information Technologies and Control*, 4 (2006), 33-43.
820. P. Benner, H. Mena, J. Saak. *On the parameter selection problem in the Newton-ADI iteration for large scale Riccati equation*. CSC Preprint 06-03, Technical University of Chemnitz, Germany, 2006. Available at <http://www.tu-chemnitz.de/mathematik/csc/2006/csc06-03.pdf>
821. D. Kressner, E. Mengi. Structure-preserving eigenvalue solvers for robust stability and controllability estimates. *Proceedings of the 45th IEEE Conference on Decision and Control, San Diego, CA, USA, Dec. 13-15, 2006*, 5174-5179.
822. J.C. Zúñiga, D. Henrion. Algorithmes numérique en commande: état de l'art et perspectives. Technical Report, LAAS, Centre Nat. Rech. Sci., Toulouse, France 2006. (Soumission à Revue des Systèmes. Journal Européen des Systèmes Automatisés.) Available at <http://www.laas.fr/~henrion/Papers/algonum.pdf>
823. V.H. Garcia, J.J. Ibáñez González. Funciones de Matrices. Technical Report DSIC-II/05/06, Departamento de Sistemas Informáticos y Computation, Universidad Politécnica de Valencia, 2006, 42 pp.
824. J.J. Ibáñez González. *Computación de Altas Prestaciones para el Cálculo de Funciones de Matrices y su Aplicación a la Resolución de Ecuaciones Diferenciales*. PhD Thesis, Departamento de Sistemas Informáticos y Computation, Universidad Politécnica de Valencia, Valencia, Spain 2006.
825. D. Chu, Y.S. Hung. A matrix pencil approach to the row by row decoupling problem for descriptor systems. *SIAM Journal on Matrix Analysis and Applications*, 28 (2006), 682-702.
826. H. Afraoui. *Côntrole et stabilisation des équations de Saint-Venant*. Thèse présentée À A l'Ecole Nationale d'Ingénieurs de Tunis pour obtenir le grade de: Docteur de l'Université. Tunis, 2006.
827. P.J. Antsaklis, A.N. Michel. *Linear Systems*. Birkhäuser, Boston, Corr. 2nd printing, 2006. ISBN 978-0-8176-4434-5.
828. P.J. Antsaklis, A.N. Michel. *A Linear System Primer*. Birkhäuser, Boston, 2007. ISBN 978-0-8176-4460-4.
829. R. Byers, V. Mehrmann, H. Xu. A structured staircase algorithm for skew-symmetric/symmetric pencils. *Electronic Transactions on Numerical Analysis*, 26(2007), 1-33.
830. V. Mehrmann, H. Xu. *Perturbation of purely imaginary eigenvalues of Hamiltonian matrices under structured perturbations*. DFG-Forschungszentrum Matheon, Technical University of Berlin, Preprint #410, 2007.
831. M.F. Rahmat, L.S. Khan. Development of a modern control systems analysis package using visual basic programming. *Elektrika (Malaysia)*, 9(2007), 41-44. ISSN: 0128-4428
832. T.H.S. Abdelaziz. Pole assignment by state-derivative feedback for single-input linear systems. *Proceedings of the Institution of Mechanical Engineers, Part I: Journal of Systems and Control Engineering*, 221(2007), 991-1000.
833. A. Linnemann. Computing the  $L_1$ -norm of a continuous time linear systems. *SIAM Journal on Control and Optimization*, 46(2007), 2052-2070.



834. Q. Truong. *Continuous-time Model Predictive Control*. MEngg Thesis, School of Computer and Electrical Engineering, RMIT University, Melbourne, Australia, 2007.
835. L.P. Hansen, T.J. Sargent. *Notes on Linear Control Theory*, University of Chicago, New York University and Hoover Institution, 2007, 32 pp. Available at <http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.43.2767>
836. L.P. Hansen, T.J. Sargent. *Robustness*. Princeton University Press, Princeton, NJ, 2008, 454 pp. ISBN: 9780691114422.
837. V. Mehrmann, H. Xu. Perturbation of purely imaginary eigenvalues of Hamiltonian matrices under structured perturbations. *Electronic Journal of Linear Algebra*, 17(2008), 234-257.
838. P. Benner. Large-scale matrix equations of special type. *Numerical Linear Algebra with Applications*, 15(2008), 747-754.
839. P. Benner, J.-R. Li, T. Penzl. Numerical solution of large-scale Lyapunov equations, Riccati equations, and linear-quadratic optimal control problems. *Numerical Linear Algebra with Applications*, 15(2008), 755-777.
840. C.T. Kim, S.K. Sung, C.D. Yang, Y.H. Yu. Rotorcraft trajectory tracking using the state-dependent Riccati equation controller. *Transactions of the Japan Society for Aeronautical and Space Sciences*, 51(2008), 184-192.
841. P. Benner, H. Mena, J. Saak. On the parameter selection problem in the Newton-ADI iteration for large scale Riccati equations. *Electronic Transactions on Numerical Analysis*, 29(2008), 136-149.
842. F.A. Aliev, V.B. Larin. Special cases in problems an optimization of stationary linear systems functioning by a feedback principle. *Advances of Mechanics*, 4 (2008), 180-202.
843. S. Carlos-Hernandez, E.N. Sanchez, J.F. Béteau. Fuzzy observers for anaerobic WWTP: Development and implementation. *Control Engineering Practice*, 17(2009), 690-702.
844. J. Casals, M. Jerez, S. Sotoca. Modelling and forecasting of time series sampled at different frequencies. *Journal of Forecasting*, 28(2009), 316-342.
845. J. Li, J. Chen. *Stochastic Dynamics of Structures*, John Wiley & Sons (Asia) Pte Ltd, Singapore, 2009. ISBN 978-0-470-82424-5
846. P. Benner, P. Ezzatti, E.S. Quintana-Ortí, A. Remón. Using hybrid CPU-GPU platforms to accelerate the computation of the matrix sign function. *Proc. 7th Int. Workshop on Algorithms, Models and Tools for Parallel Computing on Heterogeneous Networks - HeteroPar'09. Lecture Notes in Computer Science*, vol. 6043, Springer, Berlin, 2010, 132-139. ISBN: 978-3-642-14121-8
847. J.V. da Fonseca Neto, I.S. Abreu, F.N. da Silva. Neural-genetic synthesis for state-space controllers based on linear quadratic regulator design for eigenstructure assignment. *IEEE Transactions on Systems, Man, and Cybernetics, part B-Cybernetics*, 40(2010), 266-285.
848. Y. Lin, L. Bao, Q. Wu, L. Zhou. A Schur method for solving projected continuous-time Sylvester equations. *International Journal of Computational and Mathematical Sciences*, 4(2010), 108-111. ISSN: 2010-3905
849. L. Amodei, J.-M. Buchot. An invariant subspace method for large-scale algebraic Riccati equation. *Applied Numerical Mathematics* 60(2010), 1067-1082. ISSN: 0168-9274
850. M. Mansouri, L. Boutat Baddas, M. Darouach, H. Messaoud. Observateur décentralisé des systèmes de grande dimension à entrées inconnues. *Proceedings of the Sixième Conférence Internationale Francophone d'Automatique (CIFA 2010), Nancy, France, 2-4 juin 2010*, 1-6.

851. M. Mansouri, L. Boutat Baddas, M. Darouach, H. Messaoud. Synthèse d'observateurs décentralisés des systèmes à grande dimension via LMI. *Proceedings of the 16ème Colloque National de la Recherche dans les Institute Universitaire de Technology Angers-Colet, France, 9-11 juin 2010*, 1-11.
852. M. Mansouri, L. Boutat Baddas, M. Darouach, H. Messaoud. Decentralised observers design for descriptor systems. *Proceedings of the 2010 18th Mediterranean Conference on Control & Automation, 23-25 June 2010, Marrakech, Morocco*, 827-832.
853. Y. Lin, L. Bao, Y. Wei. Matrix sign function methods for solving projected generalized continuous-time Sylvester equations. *IEEE Transactions on Automatic Control*, 55(2010), 2629-2634.
854. К.П. Стоилова. *Итеративна координация с предсказване*. Академично издателство "Проф. Марин Дринов", С., 2010 (ISBN 9789543222681).
855. V. Mehrmann, F. Poloni. *A generalized structured doubling algorithm for optimal control problems*. DFG-Forschungszentrum Matheon, Technical University of Berlin, Preprint #750, 2010.
856. J. Casals, M. Jerez, S. Sotoca. Decomposition of a state-space model with inputs. *Journal of Statistical Computation and Simulation*, 80 (2010), 979-992.
857. P. Ezzatti, E.S. Quintana-Orti, A. Remón. *Computación de alto desempeño para la reducción de modelos*. Reporte Técnico RT 11-10, PEDECIBA, Instituto de Computación – Facultad de Ingeniería Universidad de la República Uruguay, Montevideo, junio de 2011.
858. V. Mehrmann, F. Poloni. Doubling algorithms with permuted Lagrangian graph bases. *SIAM Journal on Matrix Analysis and Applications*, 33(2012), 780-805. DOI: 10.1137/110850773
859. M. Dehghan, M. Hajarian. The generalised Sylvester matrix equations over the generalised bisymmetric and skew-symmetric matrices. *International Journal of Systems Science*, 43(2012), 1580-1590, DOI:10.1080/00207721.2010.549584
860. V. Mehrmann, F. Poloni. A generalized structured doubling algorithm for the numerical solution of linear quadratic optimal control problems. *Numerical Linear Algebra with Applications*, 20 (2013), 112-137, DOI:10.1002/nla.1828
861. Y. Lin, L. Bao, Y. Cao, L. Zhou. A direct method for solving projected generalized continuous-time Sylvester equations. *Journal of Control Theory and Applications*, 10 (2012), 319-324. ISSN: 1672-6340, DOI 10.1007/s11768-012-0192-x
862. D.F. Ávila Álvarez. *Robustez de la Estimación de Estado en Sep's por el Método de Cuadrados Mínimos*, Tesis que para obtener el grado de Maestro en Ciencias en Ingeniería Eléctrica, Escuela Superior de Ingeniería Mecánica y Eléctrica, Instituto Politécnico Nacional, México, Agosto 2012.
863. Y. Zhou, Y. Lin, L. Bao. Krylov subspace type methods for solving projected generalized continuous-time Lyapunov equations. *WSEAS Transactions on Mathematics*, 11 (2012), 1114-1126. E-ISSN: 2224-2880
864. Y. Zhou, L. Bao, Y. Lin. An alternating direction implicit method for solving projected generalized continuous-time Sylvester equations. *Mathematical Problems in Engineering*, 2013, pp. 16.
865. G. Ding. *A Control Theoretic Approach to Analyzing Peer-to-Peer Searching*, Technical Report, Qualcomm Research, San Diego, California, US, 2013, 7 p.
866. N. Meng. *Optimal Portfolios - The Benefits of Advanced Techniques in Risk Management and Portfolio Optimization*. Master Thesis, Department of Mathematics, Swiss Federal Institute of Technology (ETH), Zurich, 2013.

867. E. Dufrechou, P. Ezzatti, E.S. Quintana-Orti, A. Remón. Accelerating the Lyapack library using GPUs. *Journal of Supercomputing*, 65 (2013), 114-1124. DOI 10.1007/s11227-013-0889-8
868. Y. Jia, G. Bosilca, J.J. Dongarra, P. Luszczek. *Parallel Reduction to Hessenberg Form with Algorithm-based Fault Tolerance*. Technical Report, Electrical Engineering and Computer Science Department, University of Tennessee, Knoxville, TN, USA, 2013.  
[http://www.netlib.org/utk/people/JackDongarra/PAPERS/ft\\_hess.pdf](http://www.netlib.org/utk/people/JackDongarra/PAPERS/ft_hess.pdf)
869. M. Mansouri. *Observation et Commande des Systèmes de Grande Dimension*, Thèse présentée et soutenue publiquement le 08 Décembre 2012 pour l'obtention du Doctorat de l'Université de Lorraine-France et Doctorat de l'Ecole Nationale d'Ingénieurs de Monastir-Tunisie, 2012.
870. P. Benner, P. Ezzatti, E.S. Quintana-Orti, A. Remón. Trading off performance for power-energy in dense linear algebra operations. *Proceedings of the VI Latin American Symposium on High Performance Computing HPCLatAm 2013, Mendoza, Argentina, July 29-30, 2013. C. Garcia Garino and M. Printista (Eds.)*, 158-166.
871. M. Hajarian. A gradient-based iterative algorithm for generalized coupled Sylvester matrix equations over generalized centro-symmetric matrices. *Transactions of the Institute of Measurement and Control, Published online before print August 13, 2013*. DOI: 10.1177/0142331213497499
872. V. Mehrmann, H. Xu. *Structure preserving deflation of infinite eigenvalues in structured pencils*. Matheon preprint, DFG-Research Center Matheon *Mathematics for Key Technologies*, Institut für Mathematik, Berlin, March 2014.
873. P. Benner, E. Dufrechou, P. Ezzatti, E.S. Quintana-Orti, A. Remón. Extending Lyapack for the solution of band Lyapunov equations on hybrid CPU-GPU platforms. Report MPIMD/14-13, Max Plank Institute, Magdeburg, Germany, 2014.
874. K. Ponomareva. *Latent State Estimation in a Class of Nonlinear Systems*. PhD Thesis, Department of Mathematical Sciences, Brunel University, United Kingdom, 2012.
875. V. Mehrmann, F. Poloni. *An inverse-free ADI algorithm for computing Lagrangian invariant subspaces*. Preprint, Technical University of Berlin, 2014.
876. P. Benner, P. Ezzatti, E.S. Quintana-Orti, A. Ramon. Trading off performance for energy in linear algebra operations with applications in control theory. *CLEI Electronic Journal*, 17 (2014), paper 3, 17 pp. ISSN 0717- 5000
877. V. Mehrmann, H. Xu. Structure preserving deflation of infinite eigenvalues in structured pencils. *Electronic Transactions on Numerical Analysis*, 44(2015), 1-24. ISSN 1068-9613
878. J. Sastre, J. Ibáñez, E. Defez, P. Ruiz. New scaling-squaring Taylor algorithms for computing the matrix exponential. *SIAM Journal on Scientific Computing*, 37 (2015), A439-A455. DOI:10.1137/090763202
879. B. Shafai, M. Saif. Proportional-integral observer in robust control, fault detection, and decentralized control of dynamic systems. In: A. El-Osery, J. Prevost (Eds.), *Control and Systems Engineering. A Report on Four Decades of Contributions*, Springer International Publishing Switzerland, 2015, 13-43. ISBN: 978-3-319-14635-5, DOI: 10.1007/978-3-319-14635-2
880. P. Benner, A. Remón, E. Dufrechou, P. Ezzatti, E.S. Quintana-Orti. Extending LYAPACK for the solution of band Lyapunov equations on hybrid CPU-GPU platforms. *Journal of Supercomputing*, 71(2015), 740-750. DOI: 10.1007/s11227-014-1322-7
881. O.M.E. El-Ghezawi. Simplified methods for eigenvalue assignment. *Advances in Pure Mathematics*, 5(2015), 383-389. DOI: 10.4236/apm.2015.57037

882. V.A. Tsachouridis. A complex line homotopy algorithm for coupled algebraic Riccati equations. *IMA Journal of Mathematical Control and Information*, 2015. DOI: 10.1093/imamci/dnv027
883. Y.A. Mobarak, S.A. Deraz, M. El-Shahat Dessouki, R. Almazmomi. Optimal control techniques in applicable values of turbine speed governor regulation. *SSRG International Journal of Electrical and Electronics Engineering (SSRG-IJEEE)*, 2(2015), 24-35. DOI: 10.14445/23488379/IJEEE-V2I8P105
- 2016 г.**
884. S.-K. Li. A finite iterative method for solving the generalized Hamiltonian solutions of coupled Sylvester matrix equations with conjugate transpose. *International Journal of Computer Mathematics*, 2016. DOI:10.1080/00207160.2016.1148810
885. S. Chen, Y. Tian. On the singular vectors of the generalized Lyapunov operator. *Operators and Matrices*, 2016, Paper OaM-1378, 1-14. ISSN: 1846-3886
886. M.L. Doko. The application of adaptive Luenberger observer concept in chemical process control: An algorithmic approach. *International Seminar on Fundamental and Application of Chemical Engineering 2016 (ISFAChe 2016), AIP Conf. Proc. 1840, 070002-1–070002-11; doi: 10.1063/1.4982291, Published by AIP Publishing*. ISBN: 978-0-7354-1510-2
887. V.A. Tsachouridis. Numerical analysis of  $H_\infty$  filter for system parameter identification. *International Journal of Modelling, Identification and Control*, 30 (2018), 163 - 183. <https://doi.org/10.1504/IJMIC.2018.095340>
888. C. Dong, Q. Gao, Q. Xiao, X. Yu, L. Pekar, H. Jia. Time-delay stability switching boundary determination for DC microgrid clusters with the distributed control framework. *Applied Energy*, 228m (2018), 189 - 204. <https://doi.org/10.1016/j.apenergy.2018.06.026>
889. L.R. Lustosa, F. Defaÿ, J.-M. Moschetta. The feasibility issue in trajectory tracking by means of regions-of-attraction-based gain scheduling. *IFAC PapersOnLine 50-1 (2017) 11504–11508*. DOI: 10.1016/j.ifacol.2017.08.1609
890. L.R. Lustosa, F. Cardoso-Ribeiro, F. Defay, J.M. Moschetta. A new look at the uncontrollable linearized quaternion dynamics with implications to LQR design in underactuated systems. *2018 European Control Conference (ECC), Limassol, Cyprus, June 12–15 2018, 3120–3125*.
891. V. Mehrmann, M. Schmidt, J.J. Stolwijk. Model and discretization error adaptivity within stationary gas transport optimization. *Vietnam Journal of Mathematics*, 2018. <https://doi.org/10.1007/s10013-018-0303-1>
892. H. Sun, J. Zhang. Solving Lyapunov equation by quantum algorithm. *Control Theory and Technology*, 15 (2017), 267 - 273. <https://doi.org/10.1007/s11768-017-7091-0>
893. Y. He. *Model-Based Estimation of AMT Vehicle Clutch Kinetic Friction Coefficient*. A Thesis Submitted to Michigan State University for the degree of Mechanical Engineering–Master of Science, 2018.
894. C. Proctor. *Model Predictive Control Synthesis for the Innovative Control Effector Tailless Fighter Aircraft*, Master's Theses, Western Michigan University, 2019. Available at [http://scholarworks.wmich.edu/masters\\_theses/4304](http://scholarworks.wmich.edu/masters_theses/4304)
895. А.Г. Марковски. *Числени проблеми при анализа и синтеза на робастни системи за управление с MATLAB и SLICOT*. Технически университет - София, 2019. ISBN: 978-619-167-377-3

896. J.J. Stolwijk. *Error Analysis and Adaptive Control for Gas Flow in Networks*, PhD Thesis, Fakultät II - Mathematik und Naturwissenschaften der Technischen Universität Berlin, Berlin, 2019.
897. J.-S. Hwang, D.-K. Kwon, A. Kareem. Frequency domain state space based mode decomposition framework. *Journal of Engineering Mechanics*, 145 (2019), DOI: 10.1061/(ASCE)EM.1943-7889.0001624
898. L. Kai, Y. Le, D. HongYi, Z. Ming. Impact of quantum algorithms on time complexity of classical-data problems. *2019 Chinese Control Conference (CCC), 27-30 July 2019, Guangzhou, China. IEEE 2019*. DOI: 10.23919/ChiCC.2019.8866303
899. V.A. Tsachouridis, G. Giantamidis, S. Basagiannis, Kostas Kouramas. Formal analysis of the Schulz matrix inversion algorithm: A paradigm towards computer aided verification of general matrix flow solvers. *Numerical Algebra, Control and Optimization*, 10(2020), 177–206. DOI: 10.3934/naco.2019047
900. V. Angelova M. Hached K. Jbilou. Approximate solutions to large nonsymmetric differential Riccati problems with applications to transport theory. *Numerical Linear Algebra with Applications*, 27(2020):e2272. DOI: 10.1002/nla.2272
901. D.-K. Kwon, J.-S. Hwang, A. Kareem. Damping estimation using enhanced virtual dynamic shaker: A web-enabled framework. *Computer-Aided Civil and Infrastructure Engineering*, 35(2020), 887–901. <https://doi.org/10.1111/mice.12531>
902. J. Falnes, A. Kurniawan. *Ocean Waves and Oscillating Systems: Linear Interactions Including Wave-Energy Extraction, 2nd ed.* Cambridge University Press, Cambridge, UK, 2020. ISBN: 978-1-108-48166-3
903. P.C.-Y. Weng, F.K.H. Phoa. Perturbation analysis of continuous-time linear time-invariant systems. *Advances in Pure Mathematics*, 10(2020), 155–173. <https://doi.org/10.4236/apm.2020.104010>
904. K. Li, H. Dai, M. Zhang. Quantum algorithms of state estimators in classical control systems. *SCIENCE CHINA Information Sciences*, 63(2020). <https://doi.org/10.1007/s11432-019-2706-9>
905. A.B. Filho, C.P. Tonetto, R.M. de Andrade. Four legged Guará robot: From inspiration to implementation. *Journal of Applied and Computational Mechanics*, 2021. DOI: 10.22055/JACM.2021.35212.2613

**M. Konstantinov, D.-W. Gu, V. Mehramnn, P. Petkov.** *Perturbation Theory for Matrix Equations*. Elsevier, Amsterdam, 2003.

906. Г.Б. Пелова. Пертурбационен анализ на диференчни полиномиални уравнения. *Годишник на Университета по архитектура, строителство и геодезия - София, XLII (2002-2003)*, 63-72.
907. B.N. Datta. *Numerical Methods for Linear Control Systems*. Elsevier, Amsterdam 2004. ISBN: 0-12-203590-9.
908. V.A. Tsachouridis, B. Kouvaritakis. The homogeneous projective transformation of general quadratic matrix equations. *IMA Journal of Mathematical Control and Information*, 22 (2005), 517-540.
909. A.C. Antoulas. *Approximation of Large-Scale Dynamical Systems*, Society for Industrial and Applied Mathematics, Philadelphia, PA, 2005. (ISBN 0-89871-529-6).

910. D. Kressner. *Numerical Methods for General and Structured Eigenvalue Problems*. Springer-Verlag, Berlin, 2005. ISBN-10 3-540-24546-4, ISBN-13 978-3-540-24546-9.
911. A.C.M. Ran, M.C.B. Reurings, L. Rodman. A perturbation analysis for nonlinear selfadjoint operator equations. *SIAM Journal on Matrix Analysis and Applications*, 28 (2006), 89-104.
912. H. Fasbender, D. Kressner. Structured eigenvalue problems. *GAMM-Mitteilungen*, Themenhaft Applied and Numerical Linear Algebra, 29 (2006), Part II:297-318.
913. R. Byers, D. Kressner. Structured condition numbers for invariant subspaces. *SIAM Journal on Matrix Analysis and Applications*, 28 (2006), 326-347.
914. V.I. Sokolov. *Contributuons to the Minimal Realization Problem for Descriptor Systems*. PhD Thesis, Fak. für Mathematik, Tech. Univ. Chemnitz, Germany, 2006.
915. H. Xiang, Y. Wei, H. Diao. Perturbation analysis of generalized saddle point systems. *Linear Algebra and its Applications*, 419 (2006), 8-23. DOI: 10.1016/j.laa.2006.03.041
916. K. Du. A note on properties and computations of matrix pseudospectra. *Applied Mathematics and Computation*, 174 (2006), 1007-1019.
917. R. Granat. *Algorithms and Library Software for Periodic and Parallel Eigenvalue Reordering and Sylvester-Type Matrix Equations with Condition Estimation*. PhD Thesis, Dept. of Computer Sci. and HPC2N, UmeåUniversity, Sweden, 2007.
918. Y. Lin, Y. Wei. Condition numbers of the generalized Sylvester equations. *IEEE Trans. Automat. Control*, 52 (2007), 2380-2385.
919. A. Liao, Y. Lei. Optimal approximate solution of the matrix equation  $AXB = C$  over symmetric matrices. *Journal of Computational Mathematics*, 25(2007), 543-552.
920. G. Pelova. Perturbation analysis of coupled matrix differential Riccati equations. *Applications of Mathematics in Engineering and Economics. Proceedings of the 32nd International Conference, 2006, Sozopol. M.S. Marinov, M.D. Todorov (Eds.), Softtrade, 2007, 114-124*. ISBN 978-954-334-050-7
921. A.H. Alaoui. *Vorticity-based estimation of vertical velocities from radar data: Accuracy and sensitivity*. A dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy, Graduate College, University of Oklahoma, Norman, Oklahoma, USA, 2007.
922. T. Bella V. Olshevsky, U. Prasad. Lipschitz stability of canonical Jordan bases of  $H$ -selfadjoint matrices under structure-preserving perturbations. *Linear Algebra and its Applications*, 428 (2008), 2130-2176.
923. Y. Wei, Y. Cao, H. Xiang. A note on the componentwise perturbation bounds of matrix and linear systems. *Applied Mathematics and Computation*, 169(2005), 1221-1236.
924. H. Xiang, Y. Wei. Structured mixed and componentwise condition numbers of some structured matrices. *Journal of Computational and Applied Mathematics*, 202(2007), 217-229. DOI: 10.1016/j.cam.2006.02.026
925. X.-g. Liu, W.-g. Wang, Y.-m. Wei. Continuity properties of the  $\{1\}$ -inverse and perturbation bounds for the Drazin inverse. *Linear Algebra and its Applications*, 429 (2008), 1026-1037.
926. H. Zhang, H. Xiang, Y. Wei. Condition number for linear systems and Kronecker product linear systems with multiple right-hand sides. *International Journal of Computer Mathematics*, 84 (2007), 1805-1817.

927. P.J. Suchomski. A reliable synthesis of discrete-time  $\mathcal{H}_\infty$  control. Part I: Basic theorems and J-lossless conjugators. *Control and Cybernetics*, 36(2007), 97-141.
928. K. Wang, G. Chen, Y. Wei. Perturbation analysis for a class of fuzzy linear systems. *Journal of Computational and Applied Mathematics*, 224 (2009), 54-65. DOI: 10.1016/j.cam.2008.04.019
929. L. Zhou, Y. Lin, Y. Wei, S. Qiao. Perturbation analysis and condition numbers of symmetric algebraic Riccati equations. *Automatica*, 45 (2009), 1005-1011.  
DOI: 10.1016/j.automatica.2008.11.010
930. N. Truhar, Z. Tomljanović, R.-C. Li. *Low-rank ADI solution of Sylvester equation via exact shifts*. Tech. Report 2009-03, Department of Mathematics, University of Texas at Arlington, Arlington, TX, 2009.
931. N. Truhar, Z. Tomljanović, R.-C. Li. Analysis of the solution of the Sylvester equation using low-rank ADI with exact shifts. *Systems and Control Letters*, 59(2010), 248-257.  
DOI: 10.1016/j.sysconle.2010.02.002
932. R. Granat, B. Kagstrom. Parallel solvers for Sylvester-type matrix equations with applications in condition estimation, Part I: Theory and algorithms. *ACM Transactions on Mathematical Software*, 37 (2010), 32:1 - 32:32. DOI: 10.1145/1824801.1824810
933. Y. Tang, L. Bao, Y. Lin. Perturbation analysis of the generalized Sylvester equation and the generalized Lyapunov equation. *International Journal of Computer Mathematics*, 88 (2011), 408-420.
934. H.-Y. Kim, H.-M. Kim. On some different types of condition numbers of the nonlinear matrix equation. *KSIAM 2011 Annual Meeting, November 25-27, 2011, Seogwipo, Jeju, Korea*, 1-4.
935. M. Rhudy, Y. Gu, J. Gross, M.R. Napolitano. Evaluation of matrix square root operations for UKF within a UAV GPS/INS sensor fusion application. *International Journal of Navigation and Observation, Volume 2011, Article ID 416828*, 1-11. DOI:10.1155/2011/416828
936. H. Diao, H. Xiang, Y. Wei. Mixed, componentwise condition numbers and small sample statistical condition estimation of Sylvester equations. *Numerical Linear Algebra with Applications*, 2011. DOI: 10.1002/nla.790
937. L. Rodman. Lipschitz properties of structure preserving matrix perturbations, *Linear Algebra and its Application* 437(2012), 1503-1517, <http://dx.doi.org/10.1016/j.laa.2012.04.047>
938. D.A. Bini, B. Ianazzo, B. Meini. *Numerical Solution of Algebraic Riccati Equations*. Society for Industrial and Applied Mathematics, Philadelphia, PA, 2012. ISBN 978-1-611972-08-5
939. X. Shi, Y. Wei, S. Ling. Backward error and perturbation bounds for high order Sylvester tensor equation. *Linear and Multilinear Algebra*, 61(2013), 1436-1446.  
<http://dx.doi.org/10.1080/03081087.2012.743541>
940. A. Yonchev. Perturbation analysis of controller design in the continuous-time quadratic stability problem: An LMI approach. *Автоматика и Информатика*, 46(2012), 5-6, 29-31.
941. H.S. Shekhawat. *Optimal Sampling and Interpolation*, Dissertation to obtain the degree of doctor at the University of Twente, Twente, The Netherlands, 2012. ISBN: 978-90-365-3473-4, DOI: <http://dx.doi.org/10.3990/1.9789036534734>
942. D. Zhou, G. Chen, G. Wu, X. Zhang. On the Nonlinear Matrix Equation  $X^s + A^*F(X)A = Q$  with  $s \geq 1$ . *Journal of Computational Mathematics*, 31(2013), 209-220. ISSN 0254-9409
943. C.-Y. Chiang, H.-Y. Fan. Residual bounds of the stochastic algebraic Riccati equation. *Applied Numerical Mathematics*, 63(2013), 78-87. DOI: 10.1016/j.apnum.2012.09.007

944. G. Su, D.S. Rosenblum. Asymptotic bounds for quantitative verification of perturbed probabilistic systems. *Formal Methods and Software Engineering, L. Groves, J. Sun (Eds.), Lecture Notes in Computer Science, 8144 (2013), Springer, Berlin, 297-312*. ISBN: 978-3-642-41201-1, DOI: 10.1007/978-3-642-41202-8\_20
945. I.P. Popchev, V.A. Angelova. Condition numbers and local perturbation bounds for the matrix equation  $X^s \pm A^H X^t A = Q$ . *Comptes rendus de l'Académie bulgare des Sciences*, 66(2013), 21-28.
946. H.-A. Chen. A study on the perturbation analysis of the stochastic algebraic Riccati equation. *Institute of Applied Mathematics, National Chung Cheng University, Minghsiung, Taiwan, 2013, 20 pp.*
947. A. Haupt, F. Allgöwer, R. Blind, A. Chamaken, R. Gotzhein, M. Krämer, L. Litz. *Wireless Networking for Control, Chapter 7 in: J. Lunze (Ed.), Control Theory of Digitally Networked Dynamic Systems, Springer, 2014*. ISBN 978-3-319-01130-1, ISBN 978-3-319-01131-8 (eBook), DOI: 10.1007/978-3-319-01131-8
948. H. Diao, X. Shi, Y. Wei. Effective condition numbers and small sample statistical condition estimation for the generalized Sylvester equation. *Science China Mathematics*, 56(2013), 967-982. DOI: 10.1007/s11425-013-4583-3
949. C.-Y. Chiang, H.-Y. Fan, M.M. Lin, H.-A. Chen. Perturbation analysis of the stochastic algebraic Riccati equation. *Journal of Inequalities and Applications*, 2013, **2013**:580, 22 pp. <http://www.journalofinequalitiesandapplications.com/content/2013/1/580>
950. Z.-j. Xie, W. Li. Sensitivity analysis of the SR decomposition. *Linear and Multilinear Algebra*, 63(2015), 222-234. <http://dx.doi.org/10.1080/03081087.2013.860595>
951. P. Koltai, O. Junge. Optimal value functions for weakly coupled systems: a posteriori estimates. *ZAMM - Journal of Applied Mathematics and Mechanics / Zeitschrift für Angewandte Mathematik und Mechanik*, 94 (2014), 345-355. DOI: 10.1002/zamm.201100138
952. V.I. Hasanov. Perturbation theory for linearly perturbed algebraic Riccati equations. *Numerical Functional Analysis and Optimization*, 2014. DOI: 10.1080/01630563.2014.895765
953. H. Li, Y. Wei. New rigorous perturbation bounds for the LU and QR factorizations. *Cornell University Library, ArXiv e-prints in Numerical Analysis [math.NA] 1405.0179v2, 2014, 1-23*. Available at <http://arxiv.org/abs/1405.0179v2>
954. H.S. Shekhawat, G. Meinsma. *Optimal relaxed causal sampling from system theoretic viewpoint*. Memorandum 2037, Department of Applied Mathematics, University of Twente, Enschede, The Netherlands, Sept. 2014. ISSN 1874-4850
955. J.T. Kool, S.L. Nichol. Four-dimensional connectivity modelling with application to Australia's north and northwest marine environments. *Environmental Modelling & Software*, 65 (2015), 67-78. <http://dx.doi.org/10.1016/j.envsoft.2014.11.022>
956. L. Wang, M.T. Chu, Y. Bo. A computational framework of gradient flows for general linear matrix equations. *Numerical Algorithms*, 68(2015), 121-141. DOI: 10.1007/s11075-014-9885-1
957. S. Ling, M. Wei, Z. Jia. Perturbation analysis for the matrix least squares problem  $AXB = C$ . *Journal of Computational and Applied Mathematics*, 273 (2015), 150-159. <http://dx.doi.org/10.1016/j.cam.2014.06.007>
958. L. Wang, M.T. Chu, Y. Bo. A computational framework of gradient flows for general linear matrix equations. *Numerical Algorithms*, 2014. DOI: 10.1007/s11075-014-9885-1
959. Y. Lin, V. Simoncini. A new subspace iteration method for the algebraic Riccati equation. *Numerical Linear Algebra with Applications*, 2014. DOI: 10.1002/nla.1936



960. H. Li, S. Wang, C. Zheng. Perturbation analysis for the periodic generalized coupled Sylvester equation. *Cornell University Library, ArXiv e-prints in Numerical Analysis [math.NA]* 1503.06484v1, 2015, 1-15. Available at <http://arxiv.org/abs/1503.06484>
  961. A.C.M. Ran, L. Rodman. Stability in matrix analysis problems. In: *Numerical Algebra, Matrix Theory, Differential-Algebraic Equations and Control Theory. Festschrift in Honor of Volker Mehrmann. P. Benner, M. Bollhöfer, D. Kressner, C. Mehl, T. Stykel (Eds.), Springer, Heidelberg, 2015, 349-376*. ISBN: 978-3-319-15259-2, DOI: 10.1007/978-3-319-15260-8\_13
  962. H. Li, Y. Wei. Improved rigorous perturbation bounds for the LU and QR factorizations. *Numerical Linear Algebra with Applications*, 22 (2015), 1115-1130. DOI: 10.1002/nla.1998
  963. V.A. Tsachouridis. A complex line homotopy algorithm for coupled algebraic Riccati equations. *IMA Journal of Mathematical Control and Information*, 2015. DOI: 10.1093/imamci/dnv027
  964. M. Gil'. Norm estimates for functions of two non-commuting operators. *Rocky Mountain Journal of Mathematics*, 45, 2015, 927-940. doi: 10.1216/RMJ-2015-45-3-927
  965. M. Gil'. Resolvents of operators on tensor products of Euclidean spaces. *Linear and Multilinear Algebra*, 2015. DOI:10.1080/03081087.2015.1083934
  966. L.J.M. Batzke. *Generic Low-Rank Perturbations of Structured Regular Matrix Pencils and Structured Matrices*. PhD Thesis, Fakultät II – Mathematik und Naturwissenschaften der Technischen Universität, Berlin, 2015.
- 2016 r.**
967. V. Simoncini. Computational methods for linear matrix equations. *SIAM Review*, 58 (2016), 377-441. DOI: 10.1137/130912839
  968. H. Li, Y. Wei, Y. Yang. New rigorous perturbation bounds for the Cholesky-like factorization of skew-symmetric matrix. *Linear Algebra and its Applications*, 491 (2016), 83-100. <http://dx.doi.org/10.1016/j.laa.2015.02.032>
  969. H.-A. Diao, D. Liu, S. Qiao. Structured condition numbers and small sample condition estimation of symmetric algebraic Riccati equations. *Cornell University Library, ArXiv e-prints in Numerical Analysis [math.NA]* 1601.03787v1, 2016, 1-28. Available at <http://arxiv.org/abs/1601.03787v1>
  970. D. Silvestrov, S. Silvestrov. Asymptotic expansions for stationary distributions of nonlinearly perturbed semi-markov processes. II. *Cornell University Library, ArXiv e-prints in Probability [math.PR]* 1603.04743v1, 2016, 1-33. Available at <http://arxiv.org/abs/1603.04743v1>
  971. D. Silvestrov, M. Petersson, O. Hössjer. Nonlinearly perturbed birth-death-type models. *Cornell University Library, ArXiv e-prints in Probability [math.PR]* 1604.02295v1, 2016, 1-68. Available at <http://arxiv.org/pdf/1604.02295>
  972. S. Chen, Y. Tian. On the singular vectors of the generalized Lyapunov operator. *Operators and Matrices*, 2016, *Paper OaM-1378*, p. 1-17. <http://oam.ele-math.com>, ISSN: 1846-3886
  973. Y. Liu. *Harnessing the Power of Multi-Source Data: an Exploration of Diversity and Similarity*. PhD dissertation (Electrical Engineering-Systems), The University of Michigan, 2016.
  974. Z.-y. Peng, Y.-z. Fang, X.-w. Xiao, D.-d. Du. New algorithms to compute the nearness symmetric solution of the matrix equation. *SpringerPlus*, 5:5005, 2016, 1-11. DOI 10.1186/s40064-016-2416-x
  975. M. Gil'. Kronecker's products and kronecker's sums of operators. In: *Contributions in Mathematics and Engineering, P.M. Pardalos, T.M. Rassias (Eds.), Springer International Publishing, 2016*. ISBN 978-3-319-31317-7, DOI: 10.1007/978-3-319-31317-7\_12

976. B. Clement, Y. Rui, A. Mansour, L. Ming. A modeling and control approach for a cubic AUV. *10th IFAC Conference on Control Applications in Marine Systems CAMS 2016, Trondheim, Norway, 13–16 September 2016. IFAC-PapersOnLine, Volume 49, Issue 23, 2016, Pages 279–284.* DOI: 10.1016/j.ifacol.2016.10.355
977. A. Wahyudiea, M.A. Jamaa, T.B. Susilob, O. Saeeda, C.S.A. Nandarc, K. Haribd. Simple bottom-up hierarchical control strategy for heaving wave energy converters. *International Journal of Electrical Power & Energy Systems, 2016.*  
<http://dx.doi.org/10.1016/j.ijepes.2016.10.010>
978. A. Pal, R. Kumar, S. Das. Sensorless speed control of induction motor driven electric vehicle using model reference adaptive controller. *Energy Procedia 90 (2016), 540 – 551.*  
doi: 10.1016/j.egypro.2016.11.222
979. H. Li, P. Lv. A note on the sensitivity analysis for the symplectic QR factorization. *Mathematical Inequalities & Applications, 20 (2017), 427-439.* doi:10.7153/mia-20-29
980. S. Yan, W. Yan, R. Wang, W. Gao. A multi-parameter rapid optimization method of inverter-based microgrid. *2018 IEEE/PES Transmission and Distribution Conference and Exposition (T&D), Denver, CO, USA, 16-19 April 2018. IEEE, 2018.* DOI: 10.1109/TDC.2018.8440142
981. V.A. Tsachouridis. Numerical analysis of  $H_\infty$  filter for system parameter identification. *International Journal of Modelling, Identification and Control, 30 (2018), 163 - 183.*  
<https://doi.org/10.1504/IJMIC.2018.095340>
982. S.-T. Ling, R.-R. Wang, Q.-B. Liu. Perturbation analysis for the (skew) Hermitian matrix least squares problem  $AXA^H = B$ . *Annals of Functional Analysis, 2018.*
983. Y.R. Serrano Llerena. *Application of Perturbation Analysis in Probabilistic Model Checking.* A Thesis Submitted for the Degree of Doctor of Philosophy, Department of Computer Science, National University of Singapore, 2018.
984. D.S. Silvestrov, S.D. Silvestrov. Asymptotic expansions for power-exponential moments of hitting times for nonlinearly perturbed semi-markov processes. *Теорія ймовірностей та математична статистика, Bun. 97, 2017, с. 171-187.*
985. J.R. Klotz, A. Parikh, T.H. Cheng, W.E. Dixon. Decentralized synchronization of uncertain nonlinear systems with a reputation algorithm. *IEEE Transactions on Control of Network Systems, 5(2018), 434–445.* DOI: 10.1109/TCNS.2016.2617623
986. A. Farooq, M. Samar, H. Li, C. Mu. Improved rigorous multiplicative perturbation bounds for the generalized Cholesky factorization and the Cholesky-like factorization. *Mathematical Inequalities & Applications, 22 (2019), 133 - 149.* doi:10.7153/mia-2019-22-10
987. B. Abola, P.S. Biganda, S. Silvestrov, D. Silvestrov, C. Engström, J.M. Magero, G. Kakuba. Perturbed Markov chains and information networks. *Cornell University Library, ArXiv e-prints in Probability [math.PR] 1901.11483v1, 2019, 1-59.*  
Available at <http://arxiv.org/abs/1901.11483v1>
988. Xiangjian Xu, Qing-Wen Wang. Extending BiCG and BiCR methods to solve the Stein tensor equation. *Computers and Mathematics with Applications, 2019.*  
DOI: 10.1016/j.camwa.2019.01.024
989. V. Angelova. Perturbation analysis for a nonlinear matrix equation arising in Tree-Like stochastic processes. *12th Annual Meeting of the Bulgarian Section of December 20-22, 2017, Sofia. SIAM, 2017, 7-8.* ISSN: 1313-3357 (print)
990. Michael Gil'. Resolvents of functions of operators with Hilbert-Schmidt Hermitian components. *Filomat 32:14 (2018), 4937–4947.* <https://doi.org/10.2298/FIL1814937G>

991. H. Mania, S. Tu, B. Recht. Certainty Equivalent Control of LQR is Efficient. *Cornell University Library, ArXiv e-prints in Optimization and Control [math.OC]* 1902.07826v1, 2019, 1-21. Available at <http://arxiv.org/abs/1902.07826v1>
992. M. Kocic. Bimetric interactions based on metric congruences. *Cornell University Library, ArXiv e-prints in High Energy Physics - Theory [hep-th]*; 1906.11841v1 [hep-th], 2019, 1-19. Available at <http://https://arxiv.org/abs/1906.11841>
993. M. Samar, A. Farooq, H. Li, C. Mu. Sensitivity analysis for the generalized Cholesky factorization. *Applied Mathematics and Computation*, 362 (2019), 1-11. <https://doi.org/10.1016/j.amc.2019.124556>
994. H. Mania, S. Tu, B. Recht. Certainty equivalence is efficient for Linear Quadratic Control. *33rd Conference on Neural Information Processing Systems (NeurIPS 2019)*, 08-14 December 2019, Vancouver, Canada.
995. V.A. Tsachouridis, G. Giantamidis. Computer-aided verification of matrix Riccati algorithms. *2019 IEEE 58th Conference on Decision and Control, Nice, France, Dec. 11-13, 2019*, 8073-8078. IEEE, 2019. DOI: 10.1109/CDC40024.2019.9030135
996. J.J. Stolwijk. *Error Analysis and Adaptive Control for Gas Flow in Networks*, PhD Thesis, Fakultät II - Mathematik und Naturwissenschaften der Technischen Universität Berlin, Berlin, 2019.
997. D. Silvestrov, S. Silvestrov, B. Abola, P.S. Biganda, C. Engström, J. M. Mango, G. Kakuba. *Теорія ймовірностей та математична статистика*, 2(101)/2019, 212-231.
998. M. Behr, P. Benner, J. Heiland. Solution formulas for differential Sylvester and Lyapunov equations. *Calcolo*, 56 (2019). <https://doi.org/10.1007/s10092-019-0348-x>
999. R. Kumar, S. Das. Model reference adaptive system-based sensorless speed control of grid-connected doubly fed induction generator in wind energy conversion system. *Iranian Journal of Science and Technology, Transactions of Electrical Engineering*, 44(2020), 129-140. DOI: 10.1007/s40998-019-00196-5
1000. M. Lotz, V. Noferini. Wilkinson's bus: Weak condition numbers, with an application to singular polynomial eigenproblems. *Foundations of Computational Mathematics*, 2020. <https://doi.org/10.1007/s10208-020-09455-y>
1001. A. Farooq, M. Samar. Sensitivity analysis for the generalized Cholesky block downdating problem. *Linear and Multilinear Algebra*, 2020. <https://doi.org/10.1080/03081087.2020.1751033>
1002. A. Farooq, M. Samar, H. Li, C. Mu. Sensitivity analysis for the block Cholesky downdating problem. *International Journal of Computer Mathematics*, 97(2020), 1234-1253. DOI: 10.1080/00207160.2019.1613528
1003. V.A. Tsachouridis, G. Giantamidis, S. Basagiannis, Kostas Kouramas. Formal analysis of the Schulz matrix inversion algorithm: A paradigm towards computer aided verification of general matrix flow solvers. *Numerical Algebra, Control and Optimization*, 10(2020), 177-206. DOI: 10.3934/naco.2019047
1004. S. Pranesh. Backward error and condition number of a generalized Sylvester equation, with application to the stochastic Galerkin method, *Linear Algebra and its Applications*, 594(2020), 95-116. <https://doi.org/10.1016/j.laa.2020.02.018>
1005. D. Silvestrov, S. Silvestrov, B. Abola, P.S. Biganda, C. Engström, J.M. Mango, G. Kakuba. Perturbed Markov chains with damping component. *Methodology and Computing in Applied Probability*, 2020. <https://doi.org/10.1007/s11009-020-09815-9>

1006. H.S. Mania. *The sample complexity of simple reinforcement learning*, Ph.D. Thesis, Electrical Engineering and Computer Sciences, University of California, Berkeley, 2020.
1007. C. Zhang, H. Yang, B. Jiang. Fault tolerant model reduction and actuator/sensor placement for flexible spacecraft. *IEEE Transactions on Aerospace and Electronic Systems*, 2020. DOI: 10.1109/TAES.2020.3031756
1008. P.S. Biganda. *Analytical and Iterative Methods of Computing PageRank of Networks*, PhD Thesis, School of Education, Culture and Communication, Mälardén University, Sweden, 2020.
1009. I. Popchev. Why perturbations? *Cybernetics and Information Technologies*, 20 (2020), 170–175. DOI: 10.2478/cait-2020-0054
1010. A. Dmytryshyn, M. Fasi, M. Gulliksson. The dynamical functional particle method for the generalized Sylvester equation. MIMS EPrint: 2021.4, Manchester Institute for Mathematical Sciences, School of Mathematics, The University of Manchester, 2021. <http://eprints.maths.manchester.ac.uk>

**P.Hr. Petkov, T.N. Slavov, J.K. Kralev.** *Design of Embedded Robust Control Systems Using MATLAB/Simulink*. Institution of Engineering & Technology, London, 2018

**2016 г.**

1011. M.-A. Enache, A. Campeanu, S. Enache, I. Vlad, R. Zlatian, R.-C. Presura. Modelling, simulation and monitoring of new asynchronous motor for EMU train. *2019 International Conference on Electromechanical and Energy Systems (SIELMEN), 9-11 Oct. 2019, Craiova, Romania*. IEEE, 2019. DOI: 10.1109/SIELMEN.2019.8905812
1012. M.V. Boskovic, M.R. Rapaic, T.B. Sekara, Milan Ponjavic, Marko Barjaktarovic, Budimir Lutovac. Novel tuning rules of PD controller for industrial processes. *2019 8th Mediterranean Conference on Embedded Computing (MECO), Budva, Montenegro, 10-14 June 2019*. IEEE, 2019. DOI: 10.1109/MECO.2019.8760157
1013. А.Г. Марковски. *Числени проблеми при анализа и синтеза на робастни системи за управление с MATLAB и SLICOT*. Технически университет - София, 2019. ISBN: 978-619-167-377-3
1014. Б.Й. Раков. *Проектиране и реализация на многомерни ПИД регулатори*. Дисертационен труд за присъждане на образователна и научна степен “доктор”. Технически университет - София, Факултет “Автоматика”, 2021.

**M. Konstantinov, P. Petkov.** *Perturbation Methods in Matrix Analysis and Control*. NOVA Science Publishers, Inc., New York, 2020.

**2016 г.**

1015. I. Popchev. Why perturbations? *Cybernetics and Information Technologies*, 20 (2020), 170–175. DOI: 10.2478/cait-2020-0054

**П. Петков, М. Константинов.** *Робастни системи за управление. Анализ и синтез с MATLAB*. АВС Техника, София 2002.

1016. D.G. Marinova, G.E. Stavroulakis, V.P. Marinov. Robust control design of a smart system with modeled structured uncertainties. *Applications of Mathematics in Engineering and Economics. 29th Int. Summer School, June 2003, Sozopol, 156-163.*
1017. С. Филипова-Петракиева. *Оценка на устойчивостта на линейни вериги и системи с интервални данни.* Дисерт. за присъждане на образ. и научна ст. Доктор, ТУ-София, 2004.
1018. D. Marinova, G. Stavroulakis. LFT modelling of damage uncertainties in smart structures. *Applications of Mathematics in Engineering and Economics (AMEE 2004). Proceedings of the 30th Jubilee International Conference, June 7-11, 2004, Sozopol, 247-253.*
1019. К. Герасимов. *Математично описание на електромеханичните движения в електроенергийната система и алгоритми за изследване на устойчивостта им при малки смущения.* Дисерт. за присъждане науч. степен "доктор на техническите науки", ТУ-Варна, 2005.
1020. K.K. Gerasimov, Y.E. Rangelov, A.M. Vrangov, J.K. Kamenov. Usage of singular numbers in evaluation of the control of synchronous generators in the power system. *Acta Universitatis Pontica Euxinus, 4 (2005), 90-93.*
1021. Е. Николов. *Робастни системи (Приложни методи за управление на технологични процеси - II част).* Издателство ТУ - София, 2005. ISBN: 954-438-499-5
1022. D. Marinova. *Optimal control: Classical approaches and new trends.* Preprint No. 4, FPMI TU-Sofia, 2006.
1023. Н.И. Петров. Изследване на областта на устойчивост на линейни динамични системи с ПИД – регулатор. *Trakia Journal of Sciences, Vol. 7, Suppl. 2, 2009, 74-78.* ISSN 1313-7050, <http://www.uni-sz.bg>
1024. Д. Маринова. Робастно управление композитными балками. *Автоматика и телемеханика, 6(2009), 74-89.*
1025. В.А. Карлова. *Изследване на възможностите за повишаване ефективността на съвременни системи за управление на типови индустриални обекти.* Дисерт. за присъждане образователно-квалификационната степен "доктор ТУ-София, 2010.
1026. B. Kalchev, N. Christov, I. Simeonov. Output-feedback  $H^\infty$  control for a second-order nonlinear model of a biotechnological process. *Comptes rendus de l'Academy Bulgare des Sciences, Tom 64, № 1, 2011, 125-132.*
1027. Т. Йонков. *Энергоэкономично управление в интегрирани системи за сградна автоматизация.* Издателство ТУ - София, 2012. ISBN: 978-954-438-987-1
1028. Г. Лехов. *Теория на управлението, част I.* Университетско издателство "А. Кънчев Русе, 2012. ISBN: 978-954-712-570-4
1029. В. Карлова-Сергиева. Моделиране на неопределеност в параметрите на обект за управление. *Годишник на Технически университет - София, т. 62, кн. 4, 2012, 199-208.* ISSN 1311-0829
1030. K. Gerasimov. Selection of weight functions for unstructured uncertainty in the synchronous generator model. *Proceedings of the International Scientific Conference on Information, Communication and Energy Systems and Technologies ICESS 2011, University of Nish, Serbia, Nish, June 29 - July 1, 2011, 477 - 480.*
1031. K.K. Gerasimov, K.K. Gerasimov, Y.L. Kamenov. Electric power system model with uncertainties in state space. *Proceedings of the Third International Congress "50th Anniversary Technical University of Varna 4-6 October 2012, Varna, 48 - 52.*

1032. К.К. Герасимов. *Изследване на робастната устойчивост на електроенергийна система*. Дисерт. за присъждане образователно-квалификационната степен "доктор ТУ-Варна, 2013.
1033. K. Perv. Orthogonal polynomials approximation and balanced truncation for a low pass filter. *Information Technologies and Control*, 11 (2013), 2 - 16. DOI: 10.1515/itc-2015-0001
1034. Y. Rangelov, K. Gerasimov, Y. Kamenov, Kr. Gerasimov. Functionalities extension of the NASAVR software for small-signal stability of electric power systems. *iCEST 2013 Conference, 26-29 June 2013, Ohrid, Macedonia, 747-750*. [http://revt.tu-sofia.bg/ICEST2013\\_2\\_73.pdf](http://revt.tu-sofia.bg/ICEST2013_2_73.pdf)
1035. В.А. Карлова-Сергиева. *Проектиране на системи за управление с гарантирано качество*. Радикс, София, 2013. ISBN 978-619-7140-01-9
1036. Д.Г. Маринова. *Синтез на робастно управление за интелигентни структури*. Евдемония продъкшън ЕООД, София, 2014, 208 стр. ISBN: 978-619-7209-03-7
1037. Й. Кралев, К. Филипова. Управление на индиректно задвижвано обърнато махало. *Международна конференция Автоматика и информатика'2014, 1-3 октомври 2014, София, I-221 - I-224*. ISSN 1313-1850
1038. D. Marinova. Optimal Control. *Classical Approaches and New Trends*. Изд-во на Технически университет, София, 2015, 86 стр. ISBN: 978-619-167-218-9

#### 2016 г.

1039. Г.Ст. Георгиев. *Анализ и синтез на робастни системи за управление на манипулатор с еластично звено*. Дисертация за присъждане на образователна и научна степен „доктор“ по научната специалност „Автоматизация на производството“. Русенски университет „Ангел Кънчев“, 2016.
1040. B. Gilev. Mixed sensitive controller design for wind turbine. *AIP Conference Proceedings 2048, 020002 (2018), 020002-1 – 020002-8*. <https://doi.org/10.1063/1.5082020>
1041. К.Л. Перев. *Обобщен метод за редукция на модели за обекти на управление от висок ред*, Дисертационен труд за придобиване на научна степен "Доктор на техническите науки Технически университет - София, 2019.
1042. А.Г. Марковски. *Числени проблеми при анализа и синтеза на робастни системи за управление с MATLAB и SLICOT*. Технически университет - София, 2019. ISBN: 978-619-167-377-3
1043. А.П. Коротинський, М.В. Коржик. Робастне уавління реактором у виробництві мастил на основі мильних загусників. *Вісник Національного технічного університету України "Київський політехнічний інститут Серія "Хімічна інженерія, екологія та ресурсобереження 2017, №1, 124–128*.
1044. Б.Й. Раков. *Проектиране и реализация на многомерни ПИД регулатори*. Дисертационен труд за присъждане на образователна и научна степен “доктор”. Технически университет - София, Факултет “Автоматика”, 2021.

**П. Петков, М. Константинов.** *Матрични изчисления (С примери от MATLAB)*. Фастумпринт, София 2016.

#### 2016 г.

1045. К.Л. Перев. *Обобщен метод за редукция на модели за обекти на управление от висок ред*, Дисертационен труд за придобиване на научна степен "Доктор на техническите науки Технически университет - София, 2019.

**П. Петков, Г. Лехов, А. Марковски.** *Ръководство по робастни системи за управление*. АБС Техника, София 2006.

1046. К.К. Герасимов. *Изследване на робастната устойчивост на електроенергийна система*. Дисерт. за присъждане образователно-квалификационната степен "доктор ТУ-Варна, 2013.

**2016 г.**

1047. Г.Ст. Георгиев. *Анализ и синтез на робастни системи за управление на манипулатор с еластично звено*. Дисертация за присъждане на образователна и научна степен „доктор” по научната специалност „Автоматизация на производството”. Русенски университет „Ангел Кънчев”, 2016.

**М. Константинов, П. Петков.** *Пертурбационен анализ в линейната алгебра и теория на управлението*. Студии на БИАП по математически науки, т. 6, София 2003.

1048. A. Cheremensky. *Newtonian Mechanics and Control. Selected Topics*. Mobilnost Plus PLC, St Petersburg, 2007. ISBN: 5-85766-024-6

1049. А.Г. Череменский. *Управление и стабилизация на някои класове механични системи*. Дисертация, представена за присъждане на научната степен “доктор на техническите науки”, Институт по механика при БАН, София 2009.

**А. Йончев, М. Константинов, П. Петков.** *Линейни матрични неравенства в теория на управлението*. Деметра, София 2005.

1050. S. Yordanova. Lyapunov stability and robustness of fuzzy process control system with parallel distributed compensation. *Information Technologies and Control*, VII (2009), 38-48.

1051. Св.Г. Савов. *Изследване на устойчивостта на неопределени линейни системи*. Дисерт. за присъждане на образ. и научна ст. Доктор, Институт по информационни технологии, БАН, 2009.

1052. Б.И. Табакова. *Проектиране и изследване на системи за размито управление на процеси*. Дисерт. за присъждане на образ. и научна ст. Доктор, ТУ-София, 2013.

**П. Хр. Петков, Н.Д. Христов.** *Анализ и синтез на линейни системи за управление със SYSLAB*. “Техника”, София 1993.

1053. Л. Сотиров. Оптимальное сингулярное адаптивное наблюдение стационарных дискретных систем с оценкой начального вектора состояния. *Автоматика и Телемеханика*, 9 (1997), 110-118.

1054. Л. Сотиров. *Избрани глави от съвременната теория на управлението*. Издателство на ТУ-Варна, Варна 1998. ISBN: 954-20-0085-5

1055. Б. Пенев. *Метод за синтез на оптимално по бързодействие управление от произволен ред за клас линейни задачи за оптимално бързодействие*. Дис. за присв. на научна ст. “доктор”, ТУ-София, 1999.

1056. Л. Сотиров. *Теория на автоматичното управление. Част II. Теория на дискретните системи за автоматично управление*. Издателство на ТУ–Варна, Варна 2000. ISBN: 954-20-0142-8
1057. Л. Сотиров. *Синтез на дискретни системи за автоматично управление*. Дисертация, представена за присъждане на научната степен “доктор на техническите науки”, ТУ–Варна, Варна 2000.
1058. Н. Маджаров, Е. Хараланова. *Инженерни методи за изследване на линейни системи*. Издателство на ТУ–София, София 2004.
1059. А.Г. Череменикий. *Управление и стабилизация на някои класове механични системи*. Дисертация, представена за присъждане на научната степен “доктор на техническите науки”, Институт по механика при БАН, София 2009.

**П. Петков.** *Многомерни системи за управление*. Изд. ВМЕИ, София 1997.

1060. Л. Сотиров. *Теория на автоматичното управление. Част II. Теория на дискретните системи за автоматично управление*. Издателство на ТУ–Варна, Варна 2000. ISBN: 954-20-0142-8

**П. Хр. Петков.** *Теория на автоматичното управление, ч. 2*. Издателство на ВМЕИ, София 1987.

1061. Л. Сотиров. *Избрани глави от съвременната теория на управлението*. Издателство на ТУ–Варна, Варна 1998. ISBN: 954-20-0085-5
1062. Л. Сотиров. *Теория на автоматичното управление. Част II. Теория на дискретните системи за автоматично управление*. Издателство на ТУ–Варна, Варна 2000. ISBN: 954-20-0142-8
1063. Л. Сотиров. *Синтез на дискретни системи за автоматично управление*. Дисертационен труд, представен за получаване на научната степен “доктор на техническите науки”, ТУ–Варна, Варна 2000.

**П. Петков, Н. Христов, М. Константинов.** *Анализ и синтез на линейни многомерни системи. Сборник алгоритми и програми по проектиране на САУ, кн. 3, “Техника”, София 1983.*

1064. E. Enchev, J. Zaprianov. Multivariable feedback system design with compensation of external disturbances. *Systems Science*, 10 (1984), 2, 57-70.
1065. I. Popchev. *Decentralized Systems*. Publishing House of the Bulgarian Academy of Sciences, Sofia 1989.
1066. И. Томов. *Въведение в съвременната теория на управлението. Част 2 - Синтез*. “Техника”, София 1984.
1067. Л. Михайлов. *Йерархичен подход при решаване на задачи за управление на системи с целенасочено поведение*. Канд. дис., ЦЛСУ-БАН, София 1984.
1068. С. Боева. *Синтез на дискретни системи при налагане на различни видове ограничения*. Канд. дис., ЦЛСУ-БАН, София 1984.
1069. Е. Енчев. *Многоосвръзано управление на клас системи с целенасочено поведение*. Канд. дис., ЦЛСУ-БАН, София 1984.



1070. И. Иванов, Е. Хараланова, М. Иванова-Янкулова, С. Хаимов, Н. Ишханян. *Нелинейни системи. Сборник алгоритми и програми по проектиране на САУ*, кн. 5. "Техника", София 1985.
1071. Л. Хаджиков, П. Иванова, Й. Динева. Оптимальное и модальное управление строительными конструкциями. *Проблемы на техническата кибернетика и роботика*, 21 (1985), 40-49.
1072. И. Попчев, С. Савов. Пакет програми за синтез на линейни децентрализиранни системи. *Автоматика и Изчислителна техника*, 24 (1986), 16-25.
1073. I. Popchev, S. Savov. DLSDP - The decentralized linear-systems design package. *Advances in Engineering Software and Workstations*, 8(1986), 52-58. DOI: 10.1016/0141-1195(86)90019-7
1074. Л. Гунчев. *Оптимално управление (Основи на техническата кибернетика, т. 5)*. "Техника", София 1987.
1075. Л. Сотиров. *Теория на автоматичното управление. Част II. Теория на дискретните системи за автоматично управление*. Изд. ТУ-Варна, Варна 2000. ISBN: 954-20-0142-8

**И. Ценов, П. Петков.** *Матрични методи за анализ и синтез на линейни системи за автоматично управление*. "Техника", София 1981.

1076. Н. Маджаров. *Введение в съвременната теория на автоматичното управление. Част 1 - Анализ*. "Техника", С. 1982.
1077. Н. Маджаров. *Теория на автоматичното управление. Част 1*. Изд. ВМЕИ, София 1987.
1078. К. Герасимов. *Математично описание на електромеханичните движения в електроенергийната система и алгоритми за изследване на устойчивостта им при малки смущения*. Дисертация за присъждане на научната степен "доктор на техническите науки", ТУ-Варна, 2005.
1079. П. Гецов. *Полунатурно конструиране на системи за управление на безпилотни летателни апарати*. Акад. изд. "Проф. М. Дринов 2011.
1080. К.К. Герасимов. *Изследване на робастната устойчивост на електроенергийна система*. Дисерт. за присъждане образователно-квалификационната степен "доктор ТУ-Варна, 2013.

## II. Цитирания на статии, публикувани в списания

**P.Hr. Petkov, N.D. Christov, M.M. Konstantinov.** A computational algorithm for pole assignment of linear multi-input systems. *IEEE Transactions on Automatic Control*, vol. 31, pp. 1044-1047, 1986. [Reprinted in "Numerical Linear Algebra Techniques for Systems and Control", A Selected Reprint Volume (R. Patel, A. Laub, P. Van Dooren, eds.), IEEE Press, New York, 1994, 380-383 (ISBN 0-7803-0443-8)].

1081. B. Datta. An algorithm to assign eigenvalues in a Hessenberg matrix: single input case. *IEEE Transactions on Automatic Control*, 32 (1987), 414-417.
1082. T. Bakri. Jordan pair assignment via state feedback. *IEEE Transactions on Automatic Control*, 32 (1987), 421-423.
1083. P. Murdoch, R. Salman. Eigenvalue assignment in a single-input linear system. *International Journal of Control*, 48 (1988), 397-405.

1084. B. Shafai, S. Bhattacharyya. An algorithm for pole assignment in high order multivariable systems. *IEEE Transactions on Automatic Control*, 33 (1988), 870-876.
1085. C. Tsui. On the computation of eigenvalue assignment problem. *Proceedings of the 1988 American Control Conference, 15-17 June 1988, Atlanta, GA, USA, 1277-1278.*
1086. C.M. Ozveren, A. Willsky, G. Verghese. Asymptotic orders of reachability in perturbed linear systems. *26th IEEE Conference on Decision and Control, 9-11 Dec. 1987, Los Angeles, California, USA. IEEE, 1987, 1714 - 1719.* DOI: 10.1109/CDC.1987.272761
1087. C. Ozveren, G.C. Verghese, A.S. Willsky. Asymptotic orders of reachability in perturbed linear systems. *IEEE Transactions on Automatic Control*, 33 (1988), 915-923. DOI: 10.1109/9.7245
1088. A. Ailon. An approach for pole assignment in singular systems. *IEEE Transactions on Automatic Control*, 34 (1989), 889-983 (1).
1089. F. Blanchini. New canonical form for pole placement. *Proceedings of the IEE-Control Theory Appl.*, 136 (1989), 314-316.
1090. N. Kawasaki, H. Kobayashi, E. Shimemura. Feedback controls for pole subset assignment. *International Journal of Control*, 50 (1989), 2381-2395.
1091. G. Miminis. The use of deflation in eigenassignment problems. *Proceedings of the International Symposium on the Mathematical Theory of Networks and Systems (MTNS-89), June 19-23, 1989, Amsterdam, The Netherlands.*
1092. W.C. Su, Z. Gajic. The reduced-order solution of the matrix differential Riccati equation of weakly coupled systems. *IEEE International Conference on Systems Engineering, 24 Aug. 1989-26 Aug. 1989, Fairborn, OH, USA. IEEE, 443 - 446.* DOI: 10.1109/ICSYSE.1989.48710
1093. Z. Gajic, D. Petkovski, X. Shen. *Singularly Perturbed and Weakly Coupled Linear-Control Systems - A Recursive Approach.* Lecture Notes in Control and Information Sciences, vol. 140, Springer, Berlin 1990. ISBN: 3-540-52333-2
1094. M. Arnold, B. Datta. An algorithm for the multiinput eigenvalue assignment problem. *IEEE Transactions on Automatic Control*, 35 (1990), 1149-1152.
1095. G. Miminis. The use of deflation in eigenstructure assignment of descriptor systems. *Proceedings of the 1990 American Control Conference, San Diego 1990, 1672-1677.*
1096. W. Berger, R. Perry, H. Sun. An algorithm for the assignment of system zeros. *Automatica*, 27 (1991), 541-544. ISSN: 0005-1098
1097. J. Loiseau. Structural necessary conditions for model following problem. *Proceedings of the 1st European Control Conference, Grenoble 1991, 703-708.*
1098. P. Stefanidis, A. Paplinski, M. Gibbard. *Numerical Operations with Polynomial Matrices. Application to Multi-Variable Dynamic Compensator Design.* Springer, Berlin 1992. ISBN 3-540-54992-7.
1099. M. Jamshidi, M. Tarokh, B. Shafai. *Computer-Aided Analysis and Design of Linear Control Systems.* Prentice Hall, Englewood Cliffs, NJ 1992.
1100. M. Amin, M. Ibbini. New explicit parametrized state feedback controller. *Control Theory and Advanced Technology*, 8 ( 1992), 659-675. ISSN: 0911-0704
1101. K. Chu. Approximate pole assignment. *International Journal of Control*, 58 (1993), 471-484.
1102. Z. Gajic, X. Shen. *Parallel Algorithms for Optimal Control of Large Scale Linear Systems.* Commun. Control Eng. Ser., Springer, Berlin 1993 (ISBN 3-540-19825-3).

1103. B. Datta, F. Rincón. Feedback stabilization of a second-order system: A nonmodal approach. *Linear Algebra and its Applications*, 188/189 (1993), 135-161.
1104. K. Huh, J.L. Stein. A quantitative performance index for model-based monitoring systems. *Proceedings of the 1993 American Control Conference, 2-4 June 1993, San Francisco, CA, 917-924*. ISBN: 0-7803-0860-3
1105. X. Икрамов. О размещений полюсов линейных стационарных систем. *Выч. проц. сист., 9, Наука, М. 1993, 35-162*.
1106. G. Miminis. Deflation in eigenvalue assignment of descriptor systems using state feedback. *IEEE Transactions on Automatic Control*, 38 (1993), 1322-1336.
1107. G. Miminis, C. Paige. A QR-like approach for the eigenvalue assignment problem. *Proceedings of the Second Hellenic European Conference on Mathematics and Informatics HERMIS'94, E.A. Lapitakis (Editor), Hellenic Mathematical Society, Athens 1994, vol. 1, 463-486*.
1108. S. Pradhan, V. Modi, M. Bhat. Matrix-method for eigenvalue assignment – The single-input case. *Journal of the Astronautical Sciences*, 42 (1994), 91-111.
1109. S. Pradhan, V. Modi, M. Bhat, A. Misra. Matrix-method for eigenstructure assignment – The multiinput case with application. *Journal of Guidance Control & Dynamics*, 17 (1994), 983-989.
1110. D. Baksi, K. Datta, G. Roy. Parallel algorithm for pole assignment of multiinput systems. *IEE Proceedings – Control Theory and Applications*, 141 (1994), 367-372.
1111. K. Huh, J. Stein. A quantitative performance index for observer-based monitoring systems. *Journal of Dynamic Systems, Measurement & Control – Transactions of ASME*, 116 (1994), 487-497.
1112. S. Karbassi, D. Bell. New method of parametric eigenvalue assignment in state-feedback control. *IEE Proceedings – Control Theory and Applications*, 141 (1994), 223-226.
1113. E.C. Vannell, S.P. Kenny, P.G. Maghami. *Efficient Eigenvalue Assignment by State and Output Feedback with Applications for Large Space Structures*. NASA Techn. Memo. 110155, NASA, Langley Research Center, Hampton, VA, 1995.
1114. A. Varga. Multishift algorithm for pole assignment of single-input systems. *Proceedings of the 3rd European Control Conference, Rome 1995, 3348-3352*.
1115. Z. Gajić, M. Qureshi. *Lyapunov Matrix Equation in System Stability and Control*. Academic Press, San Diego 1995 (ISSN 0-12-273370-3).
1116. J. Wang, Y. Juang. A new approach for computing the state-feedback gains of multivariable systems. *IEEE Transactions on Automatic Control*, 40 (1995), 1823-1826.
1117. S. Oucheriah. Dynamic compensation of uncertain time-delay systems using variable-structure approach. *IEEE Transactions on Circuits and Systems Part I: Fundamental Theory and Applications*, 42 (1995), 466-470.
1118. G. Miminis, H. Roth. Algorithm 747: a Fortran subroutine to solve the eigenvalue assignment problem for multiinput systems using state feedback. *ACM Transactions on Mathematical Software*, 21(1995), 299-326.
1119. A. Varga. A multishift Hessenberg method for pole assignment of single-input systems. *IEEE Transactions on Automatic Control*, 41 (1996), 1795-1799.
1120. Z. Gajic, M. Lelic. *Modern Control System Engineering*. Prentice Hall Int., London, 1996. ISBN 0-13-134116-2.

1121. V. Mehrmann, H. Xu. An analysis of the pole placement problem. I. The single-input case. *Electronic Transactions on Numerical Analysis (ETNA)*, 4 (1996), 89-105 Available at <http://etna.mcs.kent.edu/vol.4.1996/pp89-105.dir/pp89-105.ps>
1122. D. Boley, B. Datta. Numerical methods for linear control systems. In "Systems and Control in the 21 Century" (C. Byrness et al., eds.), *Progress in Systems and Control Theory*, **22**, Birkhäuser, Boston 1997, 51-74. ISBN: 978-0-8176-3881-8
1123. A. Varga. Parametric methods for pole assignment. *Proceedings of the European Control Conference ECC'97, Brussels, Belgium 1997*. IEEE, 1997. DOI: 10.23919/ECC.1997.7082693
1124. A. Varga. *On minimum norm pole assignment with periodic feedback*. Technical Report TR R226-97, DLR - Oberpfaffenhofen, German Aerospace Research Development, Wessling, Germany, 1997.
1125. H. Oloomi, B. Shafai. Constrained stabilization problem and transient mismatch phenomenon in singularly perturbed systems. *International Journal of Control*, 67 (1997), 435-454.
1126. V. Mehrmann, H. Xu. Choosing poles so that the single-input pole placement problem is well conditioned. *SIAM Journal on Matrix Analysis and Applications*, 19 (1998), 664-681.
1127. G. Liu, R. Patton. *Eigenstructure Assignment for Control System Design*. John Wiley and Sons, New York 1998 (ISBN 0-471-97549-4).
1128. E. Chu. Optimization and pole assignment in control system design. *Proceedings of the Eighth Biennial Conference, Computational Techniques and Applications: CTAC97, Adelaide, Australia, 29 September - 1 October 1997* (B. Noye, M. Teubner, A. Gill, eds.), World Scientific Publishing, Singapore, 1998, 123-130. ISBN:981-02-3519-4
1129. A. Varga. *Selection of Basic Software Tools for Standard and Generalized State-Space Systems and Transfer Matrix Factorizations*. SLICOT Work. Note 1998-3, <http://www.win.tue.nl/niconet/NIC2/reports.html>.
1130. M. Arnold, B. Datta. Single-input eigenvalue assignment algorithms: A close look. *SIAM Journal on Matrix Analysis and Applications*, 19 (1998), 447-467.
1131. Л. Сотиров. *Избрани глави от съвременната теория на управлението*. Изд. ТУ-Варна, Варна 1998. ISBN: 954-20-0085-5
1132. A. Varga, P.V. Dooren. *Basic Software Tools for Standard and Generalized State-Space Systems and Transfer Matrix Factorizations*. SLICOT Work. Note 1999-17, Available at <http://www.win.tue.nl/niconet/NIC2/reports.html>.
1133. X. Rao. *Large Scale Stabilization with Linear feedback*, MSc Thesis, College of Art and Sciences, The Florida State University, 1999.
1134. G. Miminis. A stepwise approach for the generalized eigenstructure assignment problem. *SIAM Journal on Matrix Analysis and Applications*, 22 (2000), 912-924.
1135. Л. Сотиров. *Теория на автоматичното управление. Част II. Теория на дискретните системи за автоматично управление*. Изд. ТУ-Варна, Варна 2000. ISBN: 954-20-0142-8
1136. Л. Сотиров. *Синтез на дискретни системи за автоматично управление*. Дисертационен труд, представен за получаване на научната степен "доктор на техническите науки", ТУ-Варна, Варна 2000.
1137. E. Chu. Optimization and pole assignment in control system design. *Proceedings of the International Conference on Mathematical Theory of Networks and Systems (MTNS'2000), Perpignan 2000*, 101-110.

1138. E. Chu. Optimization and pole assignment in control system design. *International Journal of Applied Mathematics and Computer Science*, 11 (2001), 1035-1053.
1139. J. Carvalho, B. Datta. A block algorithm for multi-input eigenvalue assignment. *Proceedings of the IFAC/IEEE Symposium on System, Structure and Control, paper 110, Prague, 2001*.
1140. M. Arnold. *A hybrid continuation Arnoldi method for the Hessenberg eigenvalue problem*. Report, University of Arkansas, 2001.  
Available at <http://www.uark.edu/~arnold/Research/rhom.ps>
1141. M. Ramadan. An algorithm for the multi-input complex eigenvalue assignment problem. *Applied Mathematics and Computation*, 140 (2003), 455-473.
1142. D.-G. Lee, G.-H. Heo, J.-M. Woo. New bounds using the solution of the discrete Lyapunov matrix equation. *International Journal of Control, Automation, and Systems*, 1 (2003), 459-463.
1143. B.N. Datta. *Numerical Methods for Linear Control Systems*. Elsevier, Amsterdam 2004. ISBN: 0-12-203590-9
1144. J. Lam, H.K. Tam. Robust eigenstructure assignment with minimum subspace separation. *International Journal of Robust and Nonlinear Control*, 14 (2004), 1227-1253.
1145. C. Tsui. *Robust Control System Design. Advanced State Space Techniques, 2nd ed.* Marcel Dekker, Inc., New York 2004. ISBN 0-8247-4869-7
1146. M.A. Rami, S. El Faiz, A. Benzaouia. Robust exact pole placement via an LMI-based algorithm. *Proceedings of the 44th Conference on Decision and Control and the European Control Conference, Seville, Spain 2005, 7858-7863 (CD Rom)*.
1147. T. Steffen. *Control Reconfiguration of Dynamical Systems*. Lecture Notes in Control and Information Sciences, vol. 320, Springer, Berlin, 2005. ISBN: 978-3-540-25730-1 (Print), 978-3-540-31586-5 (Online)
1148. K.B. Datta. Eigenvalue assignment in multi-variable control systems using a block Hessenberg matrix. *Proceedings of the IEEE Conference & Exhibition on Control, Communications and Automation, 11-13 Dec. 2008 (INDICON 2008), Kanpur, India, IEEE Press, vol. I, pp. 138-143*.
1149. M.A. Rami, S. El Faiz, A. Benzaouia, F. Tadeo. Robust exact pole placement via an LMI-based algorithm. *IEEE Transactions on Automatic Control*, 54 (2009), 394-398.
1150. P. Righettini, S. Chatterton. Influence of the manipulator dynamic properties on the design of a force-position controller. *Proceedings of the IEEE International Conference on Mechatronics (ICM 2009), Apr. 14-17 2009 Malaga, Spain, IEEE Press, 2009, pp. 585-590*.
1151. Z. Gajic, M.T. Lim, D. Skataric, W.C. Su, V. Kecman. Finite time optimal control via Hamiltonian method. "Optimal Control: Weakly Coupled Systems and Applications", Ch. 8, *Automation and Control Engineering Series*, 31, CRC Press, Boca Raton, FL, 2009, 193-223.
1152. A. de Barros Fontes. *Desenvolvimento e Implementação de Algoritmos Numericamente Estáveis para Posicionamento de Pólos por Realimentação de Estados em Sistemas Lineares Multivariáveis*, Dissertação submetida à Universidade Federal de Santa Catarina para obtenção de grau de Mestre em Engenharia, Florianópolis, Brazil, July 1988.
1153. Z.-c. Guo, Y.-f. Cai, J. Qian, S.-f. Xu. A modified Schur method for robust pole assignment in state feedback control. *Cornell University Library, ArXiv e-prints in Optimization and Control [math.OC]* 1410.2989v1, 2014, 1-24. Available at <http://arxiv.org/abs/1410.2989v1>

1154. Z.-c. Guo, Y.-f. Cai, J. Qian, S.-f. Xu. A modified Schur method for robust pole assignment in state feedback control. *Automatica*, 52 (2015), 334-339.  
<http://dx.doi.org/10.1016/j.automatica.2014.12.028>

1155. J.P. Álvaro. *Fiedler matrices: Numerical and structural properties*. PhD Thesis, Departamento de matemáticas, Universidad Carlos III de Madrid, Leganés, Madrid, 2015.

#### 2016 г.

1156. Z.-C. Guo, , J. Qian, Y.-f. Cai, S.-f. Xu. Refined Schur method for robust pole assignment with repeated poles. *IEEE Transactions on Automatic Control*, 61 (2016), 2370 - 2385.  
 DOI: 10.1109/TAC.2015.2491558

1157. A.A. Sayyad. *Optimisation of Condition Number for Eigenstructure Problem*, PhD Thesis, School of Mathematics, Computer Science and Engineering, Department of Electrical and Electronic Engineering, Systems & Control Research Centre, City University of London, 2016.

1158. T.H.S. Abdelaziz. Pole assignment of multivariable systems using proportional-derivative state feedback. *International Journal of Systems Science*, 48 (2017), 2871-2886.  
 DOI: 10.1080/00207721.2017.1359349

**P.Hr. Petkov, N.D. Christov, M.M. Konstantinov.** On the numerical properties of the Schur approach for solving the matrix Riccati equation. *Systems and Control Letters*, vol. 9, 1987, pp. 197-201.

1159. Ф. Алиев, Б. Бордюг, В. Ларин. *Использование матричной сигнум-функции при построении матрицы Грина и решении алгебраических уравнений Рикати*. Препринт 257, Институт Физики АН Азерб. ССР, Баку 1987.

1160. Ф. Алиев, Б. Бордюг, В. Ларин. *Ортогональные проекторы и решение алгебраических уравнений Рикати*. Препринт 24, Институт Физики АН Азерб. ССР, Баку 1988.

1161. F.A. Aliev, B.A. Bordug, V.B. Larin. The orthogonal projectors and Riccati matrix algebraic equation solution. *Доклады АН СССР*, 303 (1988), 521-524.

1162. T.H. Kerr. Computational techniques for the matrix pseudoinverse in minimum variance reduced-order filtering and control. *Control and Dynamic Systems*, 28 (1988), 57-107.

1163. C. Kenney, A. Laub, M. Wette. A stability enhancing scaling procedure for Schur-Riccati solvers. *Systems and Control Letters*, 12 (1989), 241-250.

1164. C. Kenney, A. Laub. Condition estimates for matrix functions. *SIAM Journal on Matrix Analysis and Applications*, 10 (1989), 191-209.

1165. A. Bunse-Gerstner, R. Byers, V. Mehrmann. Numerical methods for algebraic Riccati equations. In *Preprints of the Workshop on the Riccati Equation in Control, Systems, and Signals, June 26-28, 1989, Como, Italy, S. Bittanti, ed., Pitagora Editrice, Bologna 1989, 107-115*.

1166. Ф. Алиев, Б. Бордюг, В. Ларин. О вычислении ортогональных проекторов и решении матричного алгебраического уравнения Рикати. *Украинский математический журнал*, 41 (1989), 1, 19-23.

1167. F.A. Aliev, B.A. Bordyug, V.B. Larin. Calculation of orthogonal projections and the solution of matrix algebraic Riccati equation. *Ukrainian Mathematical Journal*, 41 (1989), 15-19.

1168. F. Aliev, B. Bordyug, V. Larin. Orthogonal projections and solution of algebraic Riccati equations. *U.S.S.R. Computational Mathematics and Mathematical Physics*, 29 (1989), Pergamon Press, Oxford, 104-108.

1169. F. Aliev, B. Bordyug, V. Larin. Comments on "A stability-enhancing scaling procedure for Schur-Riccati solvers". *Systems and Control Letters*, 14 (1990), 453.
1170. C. Kenney, A. Laub, M. Wette. Error bounds for Newton refinement of solutions to algebraic Riccati equations. *Math. Control Signals Systems*, 3 (1990), 211-224. [Reprinted in "Numerical Linear Algebra Techniques for Systems and Control", A Selected Reprint Volume (R. Patel, A. Laub, P. Van Dooren, eds.), IEEE Press, New York, 1994, 517-528 (ISBN 0-7803-0443-8)].
1171. Ф. Алиев, Б. Бордюг, В. Ларин.  $H_2$ -оптимизация и метод пространства состояний в задаче синтеза оптимальных регуляторов. ЭЛМ, Баку 1991 (ISBN 5-8066-0444-6).
1172. V. Mehrmann. *The Autonomous Linear Quadratic Control Problem. Theory and Numerical Solution*. Lecture Notes in Control and Information Sciences, Springer, Berlin 1991, ISBN 3-540-54170-5.
1173. A. Laub. Invariant subspace methods for the numerical solution of Riccati equations. In "Riccati Equation" (S. Bittanti, A. Laub, J. Willems, eds.), Springer, Berlin 1991, 163-196, ISBN 3-540-53099-1.
1174. F. Fairman, G. Danylchuk, J. Louie, C. Zarowski. A state-space approach to discrete-time spectral factorization. *IEEE Transactions on Circuits and Systems II. Analog Digital Signal Processing*, 39 (1992), 161-170.
1175. В. Ларин. Оптимизация в пространстве Харди и проблема параметризации регуляторов (обзор). *Прикладная механика*, 28 (1992), 3-20.
1176. V.B. Larin. Optimization in the Hardy space and the problem of the parametrization of controllers (survey). *International Applied Mechanics*, 28 (1992), 67-84. ISSN: 1064-2315
1177. V. Larin. The generalized Lyapunov equation and factorization of matrix polynomials. *Journal of Automation and Information Sciences*, 25 (1992), 1-6.
1178. F.A. Aliev, B.A. Bordyug, V.B. Larin. Discrete generalized algebraic Riccati equations and polynomial matrix factorizations. *Systems and Control Letters*, 18 (1992), 49-59. ISSN: 0167-6911
1179. F.A. Aliev, V.B. Larin. Generalized Lyapunov equation and factorization of matrix polynomials. *Systems and Control Letters*, 21 (1993), 485-491. ISSN: 0167-6911
1180. В. Ангелова. *Пертурбационен анализ на линейни многомерни системи за управление*. Канд. дис., ИИТ-БАН, С. 1993.
1181. A. Varga, K. Fasol. A new square-root balancing-free stochastic truncation model reduction algorithm. *Preprints of the 12th IFAC World Congress, Sydney 1993*, 7, 153-156.
1182. P. Pandey. On scaling an algebraic Riccati equation. *Proceedings of the 1993 American Control Conference, San Francisco, CA, June 2-4, 1993*, 1583-1587. ISBN: 0-7803-0861-1
1183. P. Pandey, A. Laub. A note on invariant subspaces of Hamiltonian matrices. *Proceedings of the 32nd Conference on Decision and Control, San Antonio (TX), 15-17 Dec. 1993, IEEE*, 4, 3150-3155.
1184. T. Gudmundsson, C. Kenney, A. Laub. Comments on "Scaling of the discrete-time algebraic Riccati equation to enhance stability of the Schur solution" - Authors' Reply. *IEEE Transactions on Automatic Control*, 38 (1993), 1160.
1185. "Numerical Linear Algebra Techniques for Systems and Control", A Selected Reprint Volume (R. Patel, A. Laub, P. Van Dooren, eds.), IEEE Press, New York, 1994, 1-35. ISBN 0-7803-0443-8.

1186. D.M. Littleboy. *Numerical techniques for Eigenstructure Assignment by Output feedback in Aircraft Applications*. PhD Thesis, Dept. of Mathematics, Univ. of Reading, UK 1994.
1187. P. Benner, A. Laub, V. Mehrmann. *A Collection of Benchmark Examples for the Numerical Solution of Algebraic Riccati Equations. II. Discrete-Time Case*. TR SPC 95-23, Fak. Math., TU-Chemnitz, 1995.
1188. P. Dorato, C. Abdalabb, V. Cerone. *Linear Quadratic Control*. Prentice Hall, Englewood Cliffs (NJ) 1995.
1189. A. Varga. On computing high accuracy solutions of a class of Riccati equations. *Control Theory and Advanced Technology*, 10 (1995), 2005-2016.
1190. E. Quintana-Orti. *Algorithms Paralelos para Resolver Ecuaciones Matriciales de Riccati en Problemas de Control*. PhD Thesis, Dpt. Syst. Inf. Comput., Univ. Valencia, Valencia 1996.
1191. P. Benner, R. Byers, E. Barth. *HAMEV and SQRED: Fortran 77 Subroutines for Computing the Eigenvalues of Hamiltonian Matrices Using Van Loan's Square Reduced Method*. TR SFB 393/96-06, Fak. Math., TU-Chemnitz, Chemnitz 1996.
1192. R. Chiang, M. Safonov. *MATLAB Robust Control Toolbox, ver. 2. Users Guide*. The Mathworks, 1996.
1193. A. Hansson, P. Hagander. *How to solve ill-posed semidefinite discrete-time algebraic Riccati equations*. Int. Rep. ISRN LUTFD2/TFRT-7554-SE, Dept. Automat. Control, Lund Inst. Techn., 1996.
1194. V. Sima. *Algorithms for Linear-Quadratic Optimization*. Marcel Dekker, Inc., New York, 1996 (ISBN 0-8247-9612-8).
1195. W. Lin, C. Wang. On computing stable Lagrangian subspaces of Hamiltonian matrices and symplectic pencils. *SIAM Journal on Matrix Analysis and Applications*, 18 (1997), 590-614.
1196. P. Benner. *Contributions to the Numerical Solution of Algebraic Riccati Equations and Related Eigenvalue Problems*. Logos Verlag, Berlin 1997 (ISBN 3-931216-70-5).
1197. P. Benner, A.J. Laub, V. Mehrmann. Benchmarks for the numerical solution of algebraic Riccati equations. *IEEE Control Systems Magazine*, 17 (1997), 18-28.
1198. V.B. Larin. On stabilizing and antistabilizing solutions to the algebraic Riccati equation. *Journal of Automation and Information Sciences*, 29(1997), 61-70. ISSN: 1064-2315
1199. S. Lesecq. *Solveur exact et conditionnement pour une class de problèmes en commande*. These Doct., Laboratoire d'Automatique de Grenoble, 1997.
1200. F. Aliev, V. Larin. *Optimization of Linear Control Systems. Analytical Methods and Computational Algorithms*. Gordon and Breach Sci. Publ., Amsterdam 1998 (ISBN 90-5699-113-2).
1201. J. Abels, P. Benner. CAREX – A Collection of Benchmark Examples for Continuous-Time Algebraic Riccati Equations. SLICOT Work. Note 1999-14, Dept. of Electr. Eng., KU Leuven, 1999. Available at <http://www.win.tue.nl/niconet/NIC2/benchmarks.html>.
1202. P. Benner, R. Byers, V. Mehrmann, H. Xu. *A Unified Deflating Subspace Approach for Classes of Polynomial and Rational Matrix Equations*. Prep. SFB393/00-05, TU-Chemnitz, Chemnitz 2000.
1203. P. Benner, R. Byers, E. Barth. Algorithm 800: Fortran 77 Subroutines for Computing the Eigenvalues of Hamiltonian Matrices. I. The Square Reduced Method. *ACM Transactions on Mathematical Software*, 26 (2000), 49-77.



1204. A. Hansson, P. Hagander. How to decompose semidefinite discrete-time algebraic Riccati equations. *European Journal of Control*, 5 (1999), 245-258.
1205. V. Tsachouridis. *A Unified Framework for the Numerical Solution and Analysis of Generalized Algebraic Quadratic Matrix Equations with Engineering and Scientific Applications. Theory and Software Design and Implementation*. PhD Thesis, University of Leicester, Leicester, UK 2002.
1206. F. Aliev, V. Larin. Special cases in optimization problems for stationary linear closed-loop systems. *International Applied Mechanics*, 39 (2003), 251-273. ISSN: 1063-7095
1207. B.N. Datta. *Numerical Methods for Linear Control Systems*. Elsevier, Amsterdam 2004 (ISBN: 0-12-203590-9).
1208. E.K.-W. Chu, H.-Y. Fan, W.-W. Lin. A structure-preserving doubling algorithm for continuous-time algebraic Riccati equations. *Linear Algebra and its Applications*, 396 (2005), 55-80.
1209. D. Chu, W.-W. Lin, R.C.E. Tan. A numerical method for a generalized algebraic Riccati equation. *SIAM Journal on Control and Optimization*, 45(2006), 1222-1250.
1210. T. Schröder. *Modellgestützte Online-Selbstdiagnose bei einem Coriolis- Massendurchflussmesser mit einem einzigen geraden Messrohr*. Dissertation, Technischen Fakultät, Christian Albrechts Universität zu Kiel, Kiel, 2006.
1211. P.J. Suchomski. A reliable synthesis of discrete-time  $\mathcal{H}_\infty$  control. Part I: Basic theorems and J-lossless conjugators. *Control and Cybernetics*, 36(2007), 97-141.
1212. F.L. Aliev, V.B. Larin. Special cases in problems an optimization of stationary linear systems functioning by a feedback principle. *Advances of Mechanics*, 4 (2008), 180-202.
1213. J.R. Volzer. An Invariant Embedding Approach to Domain Decomposition. PhD Dissertation, Department of Mathematics, Case Western Reserve University, May 2014.

#### 2016 r.

1214. Z.-G. Jia, M.-X. Zhao. A structured condition number for self-adjoint polynomial matrix equations with applications in linear control. *Journal of Computational and Applied Mathematics* 331 (2018), 208 - 216. <https://doi.org/10.1016/j.cam.2017.09.046>
- P.Hr. Petkov, N.D. Christov, M.M. Konstantinov.** A computational algorithm for pole assignment of linear single-input systems. *IEEE Transactions on Automatic Control*, vol. 29, pp. 1045-1048, 1984.
1215. G. Miminis. *Numerical Algorithms for the Pole Placement Problem*. Ph.D. Thesis, School Comp. Sci., McGill University, 1984.
1216. A. Laub. Numerical linear algebra aspects of control design computations. *IEEE Transactions on Automatic Control*, 30 (1985), 97-108.
1217. A. Laub, A. Linnemann, M. Wette. Algorithms and software for pole assignment by state feedback. *Proc. 2nd IEEE Control Soc. Symp. CACSD, Santa Barbara, California 1985*.
1218. T. Kaczorek. Pole placement for linear discrete-time systems by periodic output feedbacks. *Systems and Control Letters*, 6 (1985), 267-269.
1219. C. Tsui. An algorithm for computing state feedback in multi-input linear systems. *Proc. 24 Conference on Decision and Control, Ft. Lauderdale, Florida 1985*, 2, 1226-1230.

1220. C. Tsui. An algorithm for computing state feedback in multiinput linear systems. *IEEE Transactions on Automatic Control*, 31 (1986), 243-246.
1221. N. Nichols. On computational algorithms for pole assignment. *IEEE Transactions on Automatic Control*, 31 (1986), 643-645.
1222. T. Bakri. Jordan pair assignment via state feedback. *IEEE Transactions on Automatic Control*, 32 (1987), 421-423.
1223. A. Laub. Control system design computations. Numerical aspects. In "Systems & Control Encyclopedia. Theory, Technology, Application" (M. Singh, ed.), 2, Pergamon Press, Oxford 1987, 813-828.
1224. P. Murdoch, R. Salman. Eigenvalue assignment in a single-input linear system. *International Journal of Control*, 48 (1988), 397-405.
1225. B. Shafai, S. Bhattacharyya. An algorithm for pole assignment in high order multivariable systems. *IEEE Transactions on Automatic Control*, 33 (1988), 870-876.
1226. C. Tsui. On the computation of eigenvalue assignment problem. *Proc. 1988 American Control Conference, Atlanta 1988*, 1277-1278.
1227. C. Cox, W. Moss. Backward error analysis for a pole assignment algorithm. *SIAM Journal on Matrix Analysis and Applications*, 10 (1989), 446-456.
1228. F. Blanchini. New canonical form for pole placement. *IEE Proceedings – Control Theory and Applications*, 136 (1989), 314-316.
1229. N. Kawasaki, H. Kobayashi, E. Shimemura. Feedback controls for pole subset assignment. *International Journal of Control*, 50 (1989), 2381-2395.
1230. B. Datta. Numerical algorithms for eigenvalue assignment problem via observer matrix equations. *Proc 29 IEEE Conference on Decision and Control, Honolulu, Hawaii 1990*, 981-982.
1231. M. Jamshidi, M. Tarokh, B. Shafai. *Computer-Aided Analysis and Design of Linear Control Systems*. Prentice Hall, Englewood Cliffs, NJ 1992.
1232. F. Uhlig. Are the coefficients of a polynomial well-conditioned functions of its roots? *Numerische Mathematik*, 61 (1992), 383-393.
1233. C. Cox, W. Moss. Backward error analysis for a pole assignment algorithm II: The complex case. *SIAM Journal on Matrix Analysis and Applications*, 13 (1992), 1159-1171.
1234. A. Linnemann. *Numerische Methoden für Regelungssysteme*. BI-Wissenschaftsverlag, Mannheim 1993 (ISBN 3-411-16141-8).
1235. X. Икрамов. О размещений полюсов линейных стационарных систем. *Вычислительные процессы и системы*, 9, Наука, М. 1993, 35-162.
1236. J. Sun. *Perturbation Analysis of the Pole Assignment Problem*. Rep. UMINF-94.12, Dept. Comput. Sci., Inst. Inform. Proc., Umeå (Sweden) 1994.
1237. "Numerical Linear Algebra Techniques for Systems and Control", *A Selected Reprint Volume* (R. Patel, A. Laub, P. Van Dooren, eds.), IEEE Press, New York, 1994, 1-35 (ISBN 0-7803-0443-8).
1238. D. Baksi, K. Datta, G. Roy. Parallel algorithm for pole assignment of multiinput systems. *IEE Proceedings – Control Theory and Applications*, 141 (1994), 367-372.
1239. A. Varga. Multishift algorithm for pole assignment of single-input systems. *Proceedings of the 3rd European Control Conference, Rome 1995*, 3348-3352.

1240. E.C. Vannell, S.P. Kenny, P.G. Maghami. *Efficient Eigenvalue Assignment by State and Output Feedback with Applications for Large Space Structures*. NASA Techn. Memo. 110155, NASA, Langley Research Center, Hampton, VA, 1995.
1241. M. Valášek, N. Olgac. Efficient pole placement technique for linear time-variant SISO systems. *IEE Proceedings – Control Theory and Applications*, 142 (1995), 451-458.
1242. M. Valášek, N. Olgac. Efficient eigenvalue assignments for general linear MIMO systems. *Automatica*, 31 (1995), 1605-1617.
1243. J. Sun. Perturbation analysis of the pole assignment problem. *SIAM Journal on Matrix Analysis and Applications*, 17 (1996), 313-331.
1244. A. Varga. A multishift Hessenberg method for pole assignment of single-input systems. *IEEE Transactions on Automatic Control*, 41 (1996), 1795-1799.
1245. V. Sima. *Algorithms for Linear-Quadratic Optimization*. Marcel Dekker, Inc., New York, 1996 (ISBN 0-8247-9612-8).
1246. B.N. Datta, C. Hetti-Arachchige. An Arnoldi-type method for the Sylvester- observer equation. *Proceedings of the 1997 European Control Conference ECC'97, Brussels, Belgium, 1997, paper ID 929 (CD Rom)*.
1247. M. Castillo-Catalan, G. Quintana-Orti, V. Hernandez, E.S. Quintana-Orti. Block-partitioned algorithms for the pole assignment problem of single-input systems. *5th IFAC Conference on System Structure and Control 1998 (SSC 98), Nantes, France, July 08-10, 1998*.
1248. G. Liu, R. Patton. *Eigenstructure Assignment for Control System Design*. John Wiley and Sons, New York 1998 (ISBN 0-471-97549-4).
1249. M. Arnold, B. Datta. Single-input eigenvalue assignment algorithms: A close look. *SIAM Journal on Matrix Analysis and Applications*, 19 (1998), 447-467.
1250. Л. Сотиров. *Избрани глави от съвременната теория на управлението*. Изд. ТУ–Варна, Варна 1998. ISBN: 954-20-0085-5
1251. Л. Сотиров. *Теория на автоматичното управление. Част II. Теория на дискретните системи за автоматично управление*. Изд. ТУ–Варна, Варна 2000. ISBN: 954-20-0142-8
1252. Л. Сотиров. *Синтез на дискретни системи за автоматично управление*. Дисертационен труд, представен за получаване на научната степен “доктор на техническите науки”, ТУ–Варна, Варна 2000.
1253. M. Arnold. A hybrid continuation Arnoldi method for the Hessenberg eigenvalue problem. Report, University of Arkansas, 2001.  
Available at <http://www.uark.edu/~arnold/Research/rhom.ps>
1254. M. Castillo, E.S. Quintana-Orti, G. Quintana-Orti, V. Hernandez. Parallel pole assignment of single-input systems. *Proceedings of the 4th International Conference on Vector and Parallel Processing, Porto, Portugal 2000, J. Palme, J. Dongarra, V. Hernandez (Eds.), Springer Verlag, Lecture Notes in Computer Science, 1981 (2001), 395-402*.
1255. B.N. Datta. *Numerical Methods for Linear Control Systems*. Elsevier, Amsterdam 2004 (ISBN: 0-12-203590-9).
1256. J. Qian, M.S. Cheng, S.F. Xu. A new algorithm for pole assignment of single-input linear systems using state feedback. *Science in China, Series A (Mathematics)*, 48 (2005), 307-321.
1257. T.H.S. Abdelaziz. Pole assignment by state-derivative feedback for single-input linear systems. *Proceedings of the Institution of Mechanical Engineers, Part I: Journal of Systems and Control Engineering*, 221(2007), 991-1000.

1258. T.S. Abdelaziz. Pole placement for single-input linear system by proportional-derivative state feedback. *Journal of Dynamic Systems, Measurement and Control*, 2015.  
DOI: 10.1115/1.4028713
1259. T.H.S. Abdelaziz. Stabilization of single-input LTI systems by proportional-derivative feedback. *Asian Journal of Control*, 2015. ISSN: 1934-6093, DOI: 10.1002/asjc.1130
- N.J. Higham, M. Konstantinov, V. Mehrmann, P. Petkov.** The sensitivity of computational control problems. *IEEE Control Systems Magazine*, vol. 24, 2004, pp. 28-43.
1260. P. Van Dooren. The basics of developing numerical algorithms. *IEEE Control Systems Magazine*, 24 (2004), 18-27.
1261. F.P. Montero. *Nonlinear Control of Uncertain Systems*, Doctoral Thesis, Universitat Politècnica de Catalunya, Barcelona, Spain, 2004.
1262. D. Henrion. C. Prieur, S. Tliba. *Improving conditioning of polynomial pole placement problems with application to low-order controller design for a flexible beam*, LAAS-CNRS Research Report No. 04163, Feb. 2004.
1263. A. C. Antoulas. *Approximation of Large-Scale Dynamical Systems*, Society for Industrial and Applied Mathematics, Philadelphia, PA 2005 (ISBN 0-89871-529-6).
1264. D. Kressner. On the use of larger bulges in the QR algorithm. *Electronic Transactions on Numerical Analysis*, 20 (2005), 50-63. ISSN 1068-9613
1265. D. Kressner. *Numerical Methods for General and Structured Eigenvalue Problems*. Springer-Verlag, Berlin, 2005. (ISBN-10 3-540-24546-4, ISBN-13 978-3-540-24546-9).
1266. J.C. Zúñiga Anaya. *Algorithmes Numérique pour les Matrices Polynomiales avec Applications en Commande*. PhD Thesis, Institute National des Sciences Appliquées de Toulouse, France, 2005.
1267. W. Paszke. *Analysis and Synthesis of Multidimensional System Classes Using Linear Matrix Inequality Methods*. Lecture Notes in Control and Computer Sciences, vol. 8. Univ. of Zielona Góra Press 2005. (ISBN 83-89712-81-4).
1268. F. Pozo, F. Ikhouane, J. Rodellar. Numerical sensitivity of the backstepping adaptive tuning functions control design. *Proceedings of the 44th Conference on Decision and Control and the European Control Conference, Seville, Spain 2005*, 4152-4157 (CD Rom).
1269. P. Benner, D. Kressner. New Hamiltonian eigensolvers with application to control. *Proceedings of the 44th Conference on Decision and Control and the European Control Conference, Seville, Spain 2005*, 6551-6556 (CD Rom).
1270. V.I. Sokolov. *Contributions to the Minimal Realization Problem for Descriptor Systems*. PhD Thesis, Fak. für Mathematik, Tech. Univ. Chemnitz, Germany, 2006.
1271. N.P. Karampetakis, A.I.G. Vardoulakis (Eds.) Special issue on the use of computer algebra systems for computer aided control system design. *International Journal of Control*, 79 (2006), 1313-1320.
1272. M.T. Söylemez, I. Üstoglu. Designing control systems using exact and symbolic manipulations of formulae. *International Journal of Control*, 79 (2006), 1418-1430.
1273. J.C. Zúñiga, D. Henrion. *Algorithmes numérique en commande: état de l'art et perspectives*. Tech. Rep., LAAS, Centre Nat. Rech. Sci., Toulouse, France 2006. (Soumission à Revue des Systèmes. Journal Européen des Systèmes Automatisés.) Available at <http://www.laas.fr/~henrion/Papers/algonum.pdf>

1274. M. Kanno, M.C. Smith. Validated numerical computation of the  $\mathcal{L}_\infty$ -norm for linear dynamical systems. *Journal of Symbolic Computation*, 41 (2006), 697-707.
1275. Y. Ebihara, T. Hagiwara. Computing the distance to uncontrollability via LMIs: Lower and upper bounds computation and exactness verification. *Proceedings of the 45th Conference on Decision and Control, San Diego, CA, Dec. 13-15, 2006*, 5772-5777.  
DOI:10.1109/CDC.2006.377048
1276. Y. Ebihara, T. Hagiwara. Further results on computing the distance to uncontrollability via LMIs. *Proceedings of the 26th American Control Conference, New York, July 09-13, 2007*, 1070-1075.
1277. P.J. Suchomski. A reliable synthesis of discrete-time  $\mathcal{H}_\infty$  control. Part I: Basic theorems and  $J$ -lossless conjugates. *Control and Cybernetics*, 36(2007), 97-141.
1278. A.D. Ames, J.C. Doyle. Complexity and fragility in stability for linear systems. *Proceedings of the 2008 American Control Conference, Seattle, WA*, 1630-1637.
1279. Y. Ebihara. Computing the distance to uncontrollability via LMS: Lower bound computation with exactness verification. *Systems and Control Letters*, 57(2008), 763-771.
1280. F. Pozo, F. Ikhouane, J. Rodellar. Numerical issues in backstepping control: Sensitivity and parameter tuning. *Journal of the Franklin Institute*, 345 (2008), 891-205.
1281. J.A. Burns, E.W. Sachs, L. Zietsman. Mesh independence of Kleinman-Newton iterations for Riccati equations in Hilbert space. *SIAM Journal on Control and Optimization*, 47(2008), 2663-2692.
1282. M. Karow, D. Kressner. On the structured distance to uncontrollability. *Systems and Control Letters*, 58(2009), 128-132.
1283. K. Yano, M. Koga. Verified numerical computation in LQ control problem. *Transactions of the Society of Instrument and Control Engineers*, 45(2009), 261-267.  
<http://doi.org/10.9746/sicetr.45.261>
1284. M. Kanno, H. Anai. Computer algebra for guaranteed accuracy. How does it help? *Japan Journal of Industrial and Applied Mathematics*, 26 (2009), 517-530.
1285. Y. Chu. *Parameter Estimation of Complex Systems from Sparse and Noisy Data*. PhD Dissertation, Department of Chemical Engineering, Texas A&M University, College Station, TX, USA, 2010.
1286. M. Kobayashi, K. Yang. *Stabilizing Solutions to Output Feedback Pole Placement Problem with Parameter Drift and Automated Alerting of System Parameter Changes*. United States Patent US 7,840,392 B2, 23.11.2010.
1287. M. Ataei, A. Enshaee. Eigenvalue assignment by minimal state-feedback gain in LTI multivariable systems. *International Journal of Control*, 84 (2011), 1956-1964.
1288. T. Aoki. Control law design based on the polynomial method for active damping of oscillatory modes – The application of the delta operator to the polynomial method. *Journal of System Design and Dynamics*, 5 (2011), 1045-1060. Online ISSN: 1881-3046,  
<http://dx.doi.org/10.1299/jsdd.5.1045>
1289. S. Wahls, H. Boche. Lower bounds on the infima in some  $\mathcal{H}_\infty$  optimization problems. *IEEE Transactions on Automatic Control*, 57 (2012), 788-793.
1290. K. Yano, M. Koga. Validated region pole assignment method based on verified numerical computation. *Proceedings of the 2012 Annual Conference of the Society-of-Instrument-and-Control-Engineers (SICE), Akita, Japan, August 20-23, 2012*, 1591-1594.

1291. S. Das, A. Neumaier. Solving overdetermined eigenvalue problem. *SIAM Journal on Scientific Computing*, 35(2013), A541-A560. DOI: 10.1137/110828514
1292. S. Bora, M. Karow. Structured eigenvalue perturbation theory. In: *Numerical Algebra, Matrix Theory, Differential-Algebraic Equations and Control Theory. Festschrift in Honor of Volker Mehrmann. P. Benner, M. Bollhöfer, D. Kressner, C. Mehl, T. Stykel (Eds.), Springer, Heidelberg, 2015, 199-222. ISBN: 978-3-319-15259-2, DOI: 10.1007/978-3-319-15260-8\_8*
1293. D. Kressner, M. Voigt. Distance problems for linear dynamical systems. In: *Numerical Algebra, Matrix Theory, Differential-Algebraic Equations and Control Theory. Festschrift in Honor of Volker Mehrmann. P. Benner, M. Bollhöfer, D. Kressner, C. Mehl, T. Stykel (Eds.), Springer, Heidelberg, 2015, 559-583. ISBN: 978-3-319-15259-2, DOI: 10.1007/978-3-319-15260-8\_20*

## 2016 r.

1294. K. Niyomsatian, P. Vanassche, J.J.C. Gyselinck, R.V. Sabariego. Active-damping virtual circuit control for grid-tied converters with differential-mode and common-mode output filters. *IEEE Transactions on Power Electronics*, 35(2020), 7583 - 7595. DOI: 10.1109/TPEL.2019.2957137
  1295. N. Bosner. Parallel reduction of four matrices to condensed form for a generalized matrix eigenvalue algorithm. *Numerical Algorithms*, 2020. <https://doi.org/10.1007/s11075-020-00883-z>
- M.M. Konstantinov, P.Hr. Petkov, N.D. Christov.** Synthesis of linear systems with desired equivalent form. *Journal of Computational and Applied Mathematics*, vol. 6, pp. 27-35, 1980.
1296. D. Boley. *Computing the Controllability/Observability Decomposition of Linear Time-Invariant Dynamic System. A Numerical Approach*. Ph.D. Diss., Dept. Comput. Sci., Stanford Univ., Stanford, CA 1981.
  1297. A. Emami-Naeini, G. Franklin. Deadbeat control and tracking of discrete-time systems. *IEEE Transactions on Automatic Control*, 27 (1982), 176-181.
  1298. T. Williams. *An Orthogonal Structure Theorem for Linear Systems*. Intern. Rep. 82/2, Control Systems Research Group, School Electronic Eng. Comp. Sci., Kingston Polytechnic, Kingston upon Thames 1982.
  1299. P. Van Dooren. Deadbeat control: A special inverse eigenvalue problem. *BIT*, 24 (1984), 681-699. [Reprinted in “*Numerical Linear Algebra Techniques for Systems and Control*”, *A Selected Reprint Volume (R. Patel, A. Laub, P. Van Dooren, eds.), IEEE Press, New York, 1994, 392-406 (ISBN 0-7803-0443-8)*].
  1300. R. Eising. A collection of numerically reliable algorithms for the deadbeat control problem. *Systems and Control Letters*, 4 (1984), 189-193.
  1301. I. Kalaikov, E. Garipov. A generalized algorithm for identification of continuous multivariable systems. *Proceedings of the 3rd International Conference on System Engineering, Wright State University, Ohio 1984, 129-134*.
  1302. T. Williams. *Numerically Reliable Software for Control: The SLICE library*. Int. Rep. 85/1, Dept. Comput., Kingston Polytechnic, Kingston upon Thames 1985.
  1303. C. Tsui. A new algorithm for the design of multifunctional observers. *IEEE Transactions on Automatic Control*, 30 (1985), 89-93.

1304. P. Van Dooren, M. Verhaegen. On the use of unitary state-space transformations. *Contemporary Mathematics, AMS Contemp. Math. Ser.*, 47 (1985), 447-463. [Reprinted in "Numerical Linear Algebra Techniques for Systems and Control", A Selected Reprint Volume (R. Patel, A. Laub, P. Van Dooren, eds.), IEEE Press, New York, 1994, 128-142] ISBN 0-7803-0443-8.
1305. T. Williams. Numerically reliable software for control: the SLICE library. *IEE Proceedings – Control Theory and Applications*, 133 (1986), 73-82.
1306. B. Datta, K. Datta. Efficient parallel algorithms for controllability and eigenvalue assignment problems. *Proceedings of the 25th Conference on Decision and Control, Athens, Greece 10-12 Dec. 1986. IEEE*, 1986, 3, 1611-1616.
1307. B. Shafai. Design of state feedback for large-scale multivariable systems. *IEEE Transactions on Automatic Control*, 32 (1987), 732-734.
1308. C. Tsui. A complete analytical solution to the equation  $TA - FT = LC$  and its applications. *IEEE Transactions on Automatic Control*, 32 (1987), 742-744.
1309. B. Datta, K. Datta. Parallel and large scale matrix computations in control: some ideas. *Preprints of the 4th IFAC Symposium on CAD of Control Systems CADCS'88, Chen Zhen-Yu (Ed.), Beijing 1988*, 468-471.
1310. B. Datta. Parallel and large-scale matrix computations in control: Some ideas. *Linear Algebra and its Applications*, 121 (1989), 243-264.
1311. M. Amin. Construction and parametrization of a class of minimum-time deadbeat controllers. *Systems and Control Letters*, 13 (1989), 353-361.
1312. B. Datta, K. Datta. On eigenvalue and canonical form assignments. *Linear Algebra and its Applications*, 131 (1990), 161-182.
1313. B. Datta, Y. Saad. Arnoldi methods for large Sylvester-like observer matrix equations, and an associated algorithm for partial spectrum assignment. *Linear Algebra and its Applications*, 154-156 (1991), 225-244.
1314. D. Gu, B. Choi, I. Postlethwaite. Low-order  $H_\infty$  sub-optimal controllers. *Preprints of 12th IFAC World Congress, Sydney 1993*, 3, 347-350.
1315. G. Duan. Solutions of the equation  $AV + BV = VF$  and their application to eigenstructure assignment in linear systems. *IEEE Transactions on Automatic Control*, 38 (1993), 276-280.
1316. X. Икрамов. О размещений полюсов линейных стационарных систем. *Вычислительные процессы и системы*, 9, Наука, М. 1993, 35-162.
1317. B. Choi. *Controller Size Reduction in Advanced Control System Design*. Ph.D. Thesis, Department of Engineering, Leicester University, Leicester 1993.
1318. R. Bru, J. Mas, A. Urbano. An algorithm for the single-input pole assignment problem. *SIAM Journal on Matrix Analysis and Applications*, 15 (1994), 393-407.
1319. "Numerical Linear Algebra Techniques for Systems and Control", A Selected Reprint Volume (R. Patel, A. Laub, P. Van Dooren, eds.), IEEE Press, New York, 1994, 1-35. ISBN 0-7803-0443-8.
1320. M. Coutinho, A. Bhaya, B. Datta. A parallel algorithm for the eigenvalue assignment problem in linear systems. *Proceedings of the International Conference on Control and Information, W.W. Shing (Ed.), The Chinese University Press, Hong-Kong, 1995*, 163-168. ISBN: 962-201-701-0

1321. P.M. Van Dooren. *Numerical Linear Algebra for Signals Systems and Control*. Draft notes prepared for the Graduate School in Systems and Control, Univ. of Louvain, Louvain-la-Neuve, Belgium, 2003. Available at <http://www.inma.ucl.ac.be/~vdooren/PVDnotes.pdf>
  1322. B. Zhou, G.-R. Duan. On equivalence and explicit solutions of a class of matrix equations. *Mathematical and Computer Modelling*, 50 (2009), 1409-1420.
- M.M. Konstantinov, P.Hr. Petkov, N.D. Christov.** Perturbation analysis of the discrete Riccati equation. *Kybernetika*, vol. 29, 1993, pp. 18-29.
1323. В. Ангелова. *Пертурбационен анализ на линейни многомерни системи за управление*. Канд. дис., ИИТ-БАН, С. 1993.
  1324. P. Lancaster, L. Rodman. *Algebraic Riccati Equations*. Clarendon Press, Oxford 1995 (ISBN 0-19-853795-6).
  1325. J. Sun. *Sensitivity Analysis of the Discrete-Time Algebraic Riccati Equation*. Report UMINF 96.08, Dept. Comp. Sci., Umeå Univ., Umeå 1996.
  1326. P. Benner, A.J. Laub, V. Mehrmann. Benchmarks for the numerical solution of algebraic Riccati equations. *IEEE Control Syst. Magazine*, 17 (1997), 18-28.
  1327. J. Sun. Backward error for the discrete-time algebraic Riccati equation. *Linear Algebra and its Applications*, 259 (1997), 183-208.
  1328. J. Sun. Sensitivity analysis of the discrete-time algebraic Riccati equation. *Linear Algebra and its Applications*, 275-276 (1998), 595-615.
  1329. J. Sun. Perturbation theory for algebraic Riccati equations. *SIAM Journal on Matrix Analysis and Applications*, 19 (1998), 39-65.
  1330. J. Sun. Residual bounds of approximate solutions of the discrete-time algebraic Riccati equation. *Numerische Mathematik*, 78 (1998), 463-478.
  1331. W. Lin, J. Sun. *Perturbation analysis of the periodic discrete-time algebraic Riccati equation*. Report UMINF 01.26, Department of Computer Science, Umeå University, Umeå, Sweden, 2001.
  1332. W. Lin, J. Sun. Perturbation analysis of the periodic discrete-time algebraic Riccati equation. *SIAM Journal on Matrix Analysis and Applications*, 24 (2002), 411-438.
  1333. J. Sun. On the sensitivity of algebraic Riccati equations. *Electronic Proceedings of the 15th International Symposium on the Mathematical Theory of Network and Systems, University of Notre Dame, South Bend, IND, USA, Aug. 2-16, 2002*. Available at <http://www.nd.edu/~mtns/cdrom.pdf>
  1334. J. Sun. Condition numbers of algebraic Riccati equations in the Frobenius norm. *Linear Algebra and its Applications*, 350 (2002), 237-261.
  1335. H. Abou-Kandil, G. Freiling, V. Ionescu, G. Jank. *Matrix Riccati Equations in Control and System Theory*. Birkhäuser Verlag, Basel, 2003. ISBN 3-7643-0085X.
  1336. B.N. Datta. *Numerical Methods for Linear Control Systems*. Elsevier, Amsterdam 2004 (ISBN: 0-12-203590-9).
  1337. N. Tilston, A.D. McLachlan, A.J. Sangster. Operating limits for distortion reduction by the augmentation technique in nonlinear transistor amplifiers. *IEE Proceedings - Circuits Devices and Systems*, 151(2004), 385-394. DOI: 10.1049/ip-cds:20040344



1338. V.N. Bukov, V.N. Ryabchenko, N.I. Sel'vesyuk. Parametrization of the Lourie-Riccati equation. *Journal of Computer and Systems Science International*, 2005, 529-569. ISSN: 1064-2307
  1339. L. Zhou, Y. Lin, Y. Wei, S. Qiao. Perturbation analysis and condition numbers of symmetric algebraic Riccati equations. *Automatica*, 45 (2009), 1005-1011.
  1340. Q. Li. *Combined Deterministic-Stochastic Identification with Application to Control of Wave Energy Harvesting Systems*. Master of Science Thesis, Department of Civil and Environmental Engineering, Duke University, 2012.
  1341. D.A. Bini, B. Ianazzo, B. Meini. *Numerical Solution of Algebraic Riccati Equations*. Society for Industrial and Applied Mathematics, Philadelphia, PA, 2012. ISBN 978-1-611972-08-5
  1342. Q. Li, J. Scruggs. Asymptotic analysis of vector ARMA identification. *Proceedings of the 51st IEEE Conference on Decision and Control, December 10-13, 2012, Maui, Hawaii, USA, Paper TuC05.4*.
- 2016 r.**
1343. H.-A. Diao, D. Liu, S. Qiao. Structured condition numbers and small sample condition estimation of symmetric algebraic Riccati equations. *Cornell University Library, ArXiv e-prints in Numerical Analysis [math.NA]* 1601.03787v1, 2016, 1-28. Available at <http://arxiv.org/abs/1601.03787v1>
  1344. H. Mania, S. Tu, B. Recht. Certainty Equivalent Control of LQR is Efficient. *Cornell University Library, ArXiv e-prints in Optimization and Control [math.OC]* 1902.07826v1, 2019, 1-21. Available at <http://arxiv.org/abs/1902.07826v1>
  1345. H. Mania, S. Tu, B. Recht. Certainty equivalence is efficient for Linear Quadratic Control. *33rd Conference on Neural Information Processing Systems (NeurIPS 2019), 08-14 December 2019, Vancouver, Canada*.
  1346. L. Pogorelyuk, C.W. Rowley, N.J. Kasdin. An efficient approximation of the Kalman filter for multiple systems coupled via low-dimensional stochastic input. *Cornell University Library, ArXiv e-prints in Optimization and Control [math.OC]* 1911.10443v1, 2019, 1-20. Available at <http://arxiv.org/abs/1911.10443v1>
  1347. J. Meng, H. Chen, Y.-J. Kim, H.-M. Kim. A further study on a nonlinear matrix equation. *Japan Journal of Industrial and Applied Mathematics*, 2020. <https://doi.org/10.1007/s13160-020-00421-3>
  1348. P. Coppens, P. Patrinos. Sample complexity of data-driven stochastic LQR with multiplicative uncertainty. *Cornell University Library, ArXiv e-prints in Systems and Control [eess.SY]* 2005.12167v1, 2020, 1-8. Available at <http://arxiv.org/abs/2005.12167>
  1349. H.S. Mania. *The sample complexity of simple reinforcement learning*, Ph.D. Thesis, Electrical Engineering and Computer Sciences, University of California, Berkeley, 2020.

**P.Hr. Petkov, N.D. Christov, M.M. Konstantinov.** Computational algorithms for linear control systems: a brief survey. *Int. J. Systems Science*, vol. 16, pp. 465-477, 1985.

1350. Ф. Алиев, Б. Бордюг, В. Ларин, М. Шабанов. *Временные и частотные методы синтеза оптимальных регуляторов*. Препринт 293, Институт Физики АН Азерб. ССР, Баку 1988.
1351. H. Kando, T. Iwazumi, H. Ukai. Singular perturbation modelling of large-scale systems with multi-time-scale property. *International Journal of Control*, 48 (1988), 2361-2387.

1352. C.H. Chen. Perturbation analysis for solutions of algebraic Riccati equations. *Journal of Computational Mathematics (China)*, 6 (1988), 336-347. ISSN: 0254-9409
1353. F. Blanchini, M. Policastro. Matrix bidiagonal form. *International Journal of Control*, 50 (1989), 699-705.  
<http://dx.doi.org/10.1080/00207178908953391>
1354. V.B. Larin. Frequency-domain design of optimal controllers. *Ukrainian Mathematical Journal*, 41(1989), 532-538. ISSN: 0041-5995
1355. V.B. Larin. Frequency methods of synthesizing optimal linear-control systems. *Soviet Journal of Computer and Systems Sciences*, 28(1990), 128-139. ISSN: 0882-4002
1356. Ф. Алиев, Б. Бордюг, В. Ларин, М. Шабанов. Частотные методы синтеза оптимальных регуляторов. Препринт 1, Институт Физики АН Азерб. ССР, Баку 1989.
1357. Ф. Алиев, Б. Бордюг, В. Ларин.  $H_2$ -оптимизация и метод пространства состояний в задаче синтеза оптимальных регуляторов. ЭЛМ, Баку 1991. ISBN 5-8066-0444-6.
1358. В. Ларин. Оптимизация в пространстве Харди и проблема параметризации регуляторов (обзор). *Прикладная механика*, 28 (1992), 3-20.
1359. V.B. Larin. Optimization in the Hardy space and the problem of the parametrization of controllers (survey). *International Applied Mechanics*, 28 (1992), 67-84. ISSN: 1063-7095
1360. В. Ангелова. Пертурбационен анализ на линейни многомерни системи за управление. Канд. дис., ИИТ-БАН, С. 1993.
1361. В. Ангелова. Чувствителност на линейна дискретна система - оценяване на точността на решението. *Автоматика и Информатика*, 1995, 2, 13-16.
1362. M. Valášek, N. Olgac. Generalization of Ackermann's formula for linear MIMO time invariant and time varying systems. *Proceedings of the 32nd IEEE Conference on Decision and Control*, 15 Dec. 1993-17 Dec., San Antonio, TX. IEEE, 1993, vol. 1, 827 - 832. ISBN: 0-7803-1298-8, DOI: 10.1109/CDC.1993.325034
1363. M. Valášek, N. Olgac. Efficient pole placement technique for linear time-variant SISO systems. *IEEE Proceedings - Control Theory and Applications*, 142 (1995), 451-458.
1364. M. Valášek, N. Olgac. Efficient eigenvalue assignments for general linear MIMO systems. *Automatica*, 31 (1995), 1605-1617.
1365. V. Sima. *Algorithms for Linear-Quadratic Optimization*. Marcel Dekker, Inc., New York, 1996. ISBN 0-8247-9612-8
1366. A.A. Nesenchuk, N.A. Nesenchuk. Computer-aided analysis and design of robust control systems using root locus techniques. *IFAC Proceedings Volumes*, 33 (2000), 161-164.  
[https://doi.org/10.1016/S1474-6670\(17\)36885-4](https://doi.org/10.1016/S1474-6670(17)36885-4)
1367. M. Tomas-Rodriguez, S.P. Banks. Spectral assignment in linear, time-varying systems. In "Linear Time-Varying Approximations to Nonlinear Dynamical Systems: With Applications in Control and Optimization", Ch. 6, *Lecture Notes in Control and Information Sciences*, Vol. 400, Springer, Berlin, 2010, 75-100. ISBN 978-1-84996-100-4
1368. M. Tomas-Rodriguez, S.P. Banks. An iterative approach to eigenvalue assignment for nonlinear systems. *International Journal of Control*, 86 (2013), 883-892.  
DOI: 10.1080/00207179.2013.765037

**M.M. Konstantinov, V. Mehrmann, P.Hr. Petkov.** Perturbation analysis of Hamiltonian Schur and block-Schur forms. *SIAM Journal on Matrix Analysis and Applications*, vol. 23, 2001, pp. 387-424.

1369. R. Alam, S. Bora. Stability of eigenvalues and spectral decompositions under linear perturbation. *Linear Algebra and its Applications*, 364 (2003), 189-211.
1370. P. Benner. Solving large-scale control problems. *IEEE Control Systems Magazine*, 24 (2004), 44-59.
1371. D. Kressner. Perturbation bounds for isotropic invariant subspaces of skew-hamiltonian matrix. *SIAM Journal on Matrix Analysis and Applications*, 26 (2005), 947-961.
1372. D. Kressner. *Numerical Methods for General and Structured Eigenvalue Problems*. Springer-Verlag, Berlin, 2005. (ISBN-10 3-540-24546-4, ISBN-13 978-3-540-24546-9).
1373. P. Benner, E.S. Quintana-Orti. Model reduction based on spectral projection methods. In *Dimension Reduction of Large-Scale Systems. Lecture Notes in Computational Science and Engineering*, 45, P. Benner, V. Mehrmann, D.C. Sorensen, Eds., Springer-Verlag, Berlin 2005, 5-48. ISBN: 3-540-24545-6
1374. H. Fasbender, D. Kressner. Structured eigenvalue problems. *GAMM-Mitteilungen, Themenhaft Applied and Numerical Linear Algebra*, 29 (2006), Part II:297-318.
1375. R. Byers, D. Kressner. Structured condition numbers for invariant subspaces. *SIAM Journal on Matrix Analysis and Applications*, 28 (2006), 326-347.
1376. H. Fasbender. *The parametrized SR algorithm for Hamiltonian matrices*. Preprint, Institut of Computational Mathematics, Technische Universität Braunschweig, 2006.
1377. H. Fasbender. *A detailed derivation of the parameterized SR algorithm and the symplectic Lanczos method for Hamiltonian matrices*. Preprint, Institut of Computational Mathematics, Technische Universität Braunschweig, 2006, 180 p.
1378. C. Pester. *A posteriori error estimation for non-linear eigenvalue problems for differential operators of second order with focus on 3D vertex singularities*. PhD Thesis, Fakultät für Mathematik, Technische Universität Chemnitz, 2006.
1379. A. Meyer, C. Pester. The Laplace and the linear elasticity problems near polyhedral corners and associated eigenvalue problems. *Mathematical Methods in the Applied Sciences*, 30(2007), 375-412.
1380. H. Fasbender. The parametrized SR algorithm for Hamiltonian matrices. *Electronic Transactions on Numerical Analysis*, 26(2007), 121-145. ISSN 1068-9613
1381. A.E. Charman. *Random Aspects of Beam Physics and Laser-Plasma Interactions*, A dissertation submitted for the degree of Doctor of Philosophy in Physics, Graduate Division, University OF California, Berkeley, 2007.
1382. А.Г. Череменин. *Управление и стабилизация на някои класове механични системи*. Дисертация, представена за присъждане на научната степен “доктор на техническите науки”, Институт по механика при БАН, София 2009.
1383. X.S. Chen. Perturbation bounds for the periodic Schur decomposition. *BIT Numerical Mathematics*, 50 (2010), 41-58.
1384. X.S. Chen, W. Li, W.W. Xu. Perturbation analysis of the eigenvector matrix and singular vector matrices. *Taiwanese Journal of Mathematics*, 16 (2012), 179-194.
1385. X.S. Chen, W. Li, M.K. Ng. Perturbation analysis for antitriangular Schur decomposition. *SIAM Journal on Matrix Analysis and Applications*, 33(2012), 325-335. DOI: 10.1137/110841370
1386. P. Ezzatti, E.S. Quintana-Orti, A. Remón. *Computación de alto desempeño para la reducción de modelos*. Reporte Técnico RT 11-10, PEDECIBA, Instituto de Computación – Facultad de Ingeniería Universidad de la República Uruguay, Montevideo, junio de 2011.

1387. H. Fassbender. Structured eigenvalue problems- structure-preserving algorithms, structured error analysis. *Draft of chapter for the second edition of Handbook of Linear Algebra, Institut of Computational Mathematics, AG Numerik, Technische Universität Braunschweig, 2013, 36 p.* Available at [http://www.icm.tu-bs.de/~hfassben/papers/preprint\\_HLA.pdf](http://www.icm.tu-bs.de/~hfassben/papers/preprint_HLA.pdf)
1388. S. Bora, M. Karow. Structured eigenvalue perturbation theory. In: *Numerical Algebra, Matrix Theory, Differential-Algebraic Equations and Control Theory. Festschrift in Honor of Volker Mehrmann. P. Benner, M. Bollhöfer, D. Kressner, C. Mehl, T. Stykel (Eds.), Springer, Heidelberg, 2015, 199-222.* ISBN: 978-3-319-15259-2, DOI: 10.1007/978-3-319-15260-8\_8
- М.М. Константинов, С.П. Патарински, П.Хр. Петков, Н.Д. Христов.** К синтезу линейных управляемых систем при неполной информации о состоянии объекта. *Автоматика и телемеханика*, 39 (1978), стр. 68-78. [English translation in: M.M. Konstantinov, S.P. Patarinski, P.Hr. Petkov, and N.D. Christov. Design of linear control systems with incomplete state information. *Automation and Remote Control*, 39 (1978), pp. 1316-1325.]
1389. T. Kaczorek. Mutual observability and its application in linear time-varying systems. *Bulletin of the Polish Academy of Sciences - Technical Sciences*, 27 (1979), 633-645.
1390. В. Домбровский. Динамические регуляторы пониженного порядка для детерминированных и стохастических систем. *Автоматика и Телемеханика*, 52 (1991), 87-95. [English translation in: V. Dombrovskii. Reduced-order dynamic regulators for deterministic and stochastic systems. *Automation and Remote Control*, 52 (1991), 1555-1562].
1391. Е. Василева, В. Домбровский. Синтез динамических регуляторов пониженного порядка по квадратичному критерию. *Автоматика и Телемеханика*, 56 (1995), 43-50. [English translation in: E. Vasileva, V. Dombrovskii. Synthesis of dynamic controllers of a reduced-order with respect to a quadratic criterion. *Automation and Remote Control*, 56 (1995), 942-948].
1392. В. Домбровский. Синтез оптимальных динамических регуляторов пониженного порядка для нестационарных линейных дискретных стохастических систем. *Автоматика и Телемеханика*, 57 (1996), 79-86. [English translation in: V. Dombrovskii. Synthesis of optimal reduced-order dynamic regulators for nonstationary linear discrete stochastic systems. *Automation and Remote Control*, 57 (1996), 522-528].
1393. Y. Sadomtsev. Roughness of multivariable systems with reduced dimension observers. *Journal of Computer and System Sciences International*, 38 (1999), 905-915. ISSN: 1064-2307
1394. D. Ivanov, Y. Sadomtsev. Synthesis of a dynamic output feedback with regard to the robustness properties. *Journal of Computer and System Sciences International*, 39 (2000), 361-369. ISSN: 1064-2307
1395. А.Г. Череменин. *Управление и стабилизация на някои класове механични системи.* Дисертация, представена за присъждане на научната степен “доктор на техническите науки”, Институт по механика при БАН, София 2009.
- P.Hr. Petkov, N.D. Christov, M.M. Konstantinov.** Comments on “On computational algorithms for pole assignment”. *IEEE Transactions on Automatic Control*, vol. 33, 1988, pp. 892-893.
1396. C. Tsui. A new robustness measure for eigenvector assignment. *Proceedings of the 1990 American Control Conference, San Diego 1990*, 958-960.
1397. T. Owens. Parametric state feedback control for arbitrary eigenvalue assignment with minimum condition number. *Proceedings of the 1st European Control Conference, Grenoble 1991*, 1292-1294.

1398. V. Syrmos, F. Lewis. Robust eigenvalue assignment for generalized systems. *Automatica*, 28 (1992), 1223-1228.
1399. T.J. Owens, J.F. Marsh. Some computational issues in optimal control by nonlinear programming. *Annals of Operations Research*, 43 (1993), 249-257.
1400. I.I. Hamarash, A.H. Ahmad. A flexible algorithm for pole assignment synthesis using state feedback. *Engineering & Technology*, 13 (1994), 77-88.
1401. C.R. Ashokkumar, A. Homaifar, R.K. Yedavalli. Dominant pole assignment in linear uncertain systems. *Proceedings of the Guidance, Navigation and Control Conference, San Diego, CA, 1996, paper AIAA-1996-3907*.
1402. I.I. Hamarash, A.M. Baqi, S. Abdulkarem. Sensitivity of closed loop system eigenvalues to structured perturbations in system parameters. *Proceedings of the 9th WSEAS International Conference on Applied Mathematics, Istanbul, Turkey, May 27-29, 2006, 542-545*.
- P. Petkov, Ts. Slavov.** Stochastic modeling of MEMS inertial sensors. *Cybernetics and Information Technologies*, vol.10, 2010, 31-40.
1403. S. Jain, S. Nandy, G. Chakraborty, C.S. Kumar, R. Ray, S.N. Shome. Error modeling of Laser Range Finder for robotic application using time domain technique. *Proceedings of the 2011 IEEE International Conference on Signal Processing, Communications and Computing (ICSPCC), 14-16 September 2011, Xian, Shaanxi, China, 1-5*.
1404. V. Bistrov. Study of the characteristics of random errors in measurements by MEMS inertial sensors. *Automatic Control and Computer Sciences*, 45(2011), 284-292.
1405. D. Aufderheide, W. Krybus, D. Dodds. *A MEMS-based Smart Sensor System for Estimation of Camera Pose for Computer Vision Applications*, Conference paper presented at the Research and Innovation Conference 2011, University of Bolton, 28 - 29 June 2011, Bolton, UK. <http://ubir.bolton.ac.uk/id/eprint/441>
1406. С.В. Іванов. Підвищення точності визначення параметрів навігаційної системи калібруванням акселерометрів за допомогою фільтра Калмана. *Електроніка та системи управління*, №2(32), 2012, 43-50. ISSN 1990-5548
1407. M.M. Carvalho, R.M. Cazo. Noise analysis in a fiber Bragg grating accelerometer using Allan Variance Method. *Proceedings of SPIE, Vol. 8351, Third Asia Pacific Optical Sensors Conference (APOS), 31 January-03 February 2012, Sydney, Australia, Article Number: 835115*. DOI: 10.1117/12.915804
1408. S. Wang, Y. Yang. Quadrotor aircraft attitude estimation and control based on Kalman filter. *31st Chinese Control Conference, 25-27 July 2012, Hefei, PRC, IEEE, 2012, 5634-5639*. Print ISBN: 978-1-4673-2581-3
1409. A. Ünver. *Determination of Stochastic Model Parameters of Inertial Sensors*. A thesis submitted to the Graduate School of Natural and Applied Sciences of Middle East Technical University, Ankara, Turkey, 2013.
1410. A.G. Quinchia, C. Ferrer, G. Falco, F. Dovis. Constrained non-linear fitting for stochastic modeling of inertial sensors. *Proceedings of the 2013 Conference on Design & Architectures for Signal & Image Processing (DASIP), Cagliari, Italy, October 8-10, 2013, IEEE, 119-125*. DOI: 10.1109/ICL-GNSS.2012.6253129
1411. M.A. Yaqoob, A. Mannesson, B. Bernhardsson, N.R. Butt. On the performance of random antenna arrays for direction of arrival estimation. *2014 IEEE International Conference on Communications Workshops (ICC), 10-14 June 2014, Sydney, NSW. IEEE, 2014, 193 - 199*. DOI: 10.1109/ICCW.2014.6881195

1412. P. Lv, J. Lai, J. Liu, G. Qin. Stochastic error simulation method of fiber optic gyros based on performance indicators. *Journal of the Franklin Institute*, 351 (2014), 1501-1516. <http://dx.doi.org/10.1016/j.jfranklin.2013.11.007>
1413. S. Zhou, F. Fei, G. Zhang, Y. Liu, W.J. Li. Hand-writing motion tracking with vision-inertial sensor fusion: Calibration and error correction. *Sensors*, 14 (2014), 15641-15657. ISSN 1424-8220, doi:10.3390/s140915641
1414. Z.Y. Miao, F. Shen, D.J. Xu, C.M. Tian, K.P. He. Online estimation method of Allan variance coefficients for MEMS IMU. *Journal of Instrumentation*, 9 (2014), P09001. DOI:10.1088/1748-0221/9/09/P09001
1415. P. Neto, M. Mendes, A.P. Moreira. Kalman filter-based yaw angle estimation by fusing inertial and magnetic sensing. *Lecture Notes in Electrical Engineering* 321 (2015), 679-688. Springer, Berlin, 2015. ISBN: 978-3-319-10379-2, DOI: 10.1007/978-3-319-10380-8\_65
1416. D. Tomaszewski, J. Rapinski, M. Smieja. Analysis of the noise parameters and attitude alignment accuracy of INS conducted with the use of MEMS-based integrated navigation system. *Acta Geodynamica et Geomaterialia*, 12 (2015), 197 - 208. DOI: 10.13168/AGG.2015.0017
1417. T. Vaispacher, R. Andoga, R. Bréda, F. Adamcik. Application of linearized Kalman filter in integration of navigation systems. *2015 16th IEEE International Symposium on Computational Intelligence and Informatics (CINTI)*, 19-21 Nov. 2015, Budapest, Hungary, IEEE, 2015. DOI: 10.1109/CINTI.2015.7382898
1418. S. Khalkhali-Sharifi, M. Shahdloo, Gh. Vossoughi. *Precise tilt angle detection using gyro and accelerometer sensor fusion*. Technical report, Sharif University of Technology, Iran, 2015.
1419. P. Neto, N. Mendes, A.P. Moreira. Kalman filter-based yaw angle estimation by fusing inertial and magnetic sensing: a case study using low-cost sensors. *Sensor Review*, 35 (2015). ISSN: 0260-2288
1420. G. Kim, S. Kim, J. Suk, J.-R. Kim. Attitude determination algorithm design and performance analysis for CNUSAIL-1 cube satellite. *Journal of The Korean Society for Aeronautical and Space Sciences*, 43 (2015), 609-618. ISSN 1225-1348, DOI:<http://dx.doi.org/10.5139/JKSAS.2015.43.7.609>
1421. S. Kwanmuang. *Filtering and Tracking for a Pedestrian Dead-Reckoning System*. PhD Dissertation, The University of Michigan, 2015.

#### 2016 r.

1422. A.Ghaffari, A.R. Khodayari, S.Arefnezhad. Calibration of an inertial accelerometer using trained neural network by Levenberg-Marquardt algorithm for vehicle navigation. *International Journal of Automotive Engineering*, 6 (2016), 2256 - 2264.
1423. M.A. Yaqoob. *Inertial Measurement Unit based Virtual Antenna Arrays – DoA Estimation and Positioning in Wireless Networks*, PhD Thesis, Department of Electrical and Information Technology, Lund University, Lund, Sweden, 2016.
1424. A. Ghaffari, A. Khodayari, S. Arefnezhad. Calibration of an inertial accelerometer using trained neural network by Levenberg-Marquardt algorithm for vehicle navigation. *International Journal of Automotive Engineering*, 6 (2016), 2256-2264.
1425. P.-K. Diamantidis. *Attitude Navigation using a Sigma-Point Kalman Filer in an Error State Formulation*. Independent thesis Advanced level, School of Electrical Engineering (EES), Department of Space and Plasma Physics, KTH Royal Institute of Technology, Stockholm, Sweden. 2017.

1426. E.M. Hemerly. MEMS IMU stochastic error modelling. *Systems Science & Control Engineering*, 5 (2017), 1-8. DOI: 10.1080/21642583.2016.1262801
1427. M.A. Rahgoshay, P. Karimaghaie, F. Shabaninia. Robust inertial frame-based alignment of fiber-optic gyro strapdown inertial navigation systems using a generalized proportional-integral-derivative filter. *Optical Engineering*, 56, 095102 (2017).  
<https://doi.org/10.1117/1.OE.56.9.095102>
1428. X. Li. *Human Body Structure Calibration Using Wearable Inertial Sensors*, A thesis submitted to the Faculty of Graduate and Postdoctoral Affairs in partial fulfillment of the requirements for the degree of Master of Applied Science, Carleton University, Ottawa, Ontario, 2017.
1429. H. Huang, X. Chen, Z. Zhou, H. Liu, C. Lv. Study on INS/DR integration navigation system using EKF/RK4 algorithm for underwater gliders. *Journal of Marine Science and Technology*, 25 (2017), 84-95. DOI: 10.6119/JMST-016-0913-3
1430. S. Chen, H. Liu, X. Liu, Q. Yu. Non-cooperative maritime target position and velocity measuring method based on monocular trajectory intersection for video satellite. *Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering*, 2017.  
<https://doi.org/10.1177/0954410017727023>
1431. S. Evren, F. Yavuz, M. Unel. High precision stabilization of pan-tilt systems using reliable angular acceleration feedback from a master-slave Kalman filter. *Journal of Intelligent and Robotic Systems*, 2017. DOI 10.1007/s10846-017-0522-9
1432. F.G. Mañero. *Estudio y modelado de errores que afectan a una Unidad de Medidas Inerciales de bajo coste*. Trabajo Fin de Grado Grado en Ingeniería de las Tecnologías de Telecomunicación. Dpto. de Ingeniería de Sistemas y Automática Escuela Técnica Superior de Ingeniería, Universidad de Sevilla, Sevilla, 2016.
1433. Z. Miao, H. Shi, Y. Zhang. Real-time analysis for stochastic errors of MEMS gyro, *Proc. SPIE 10463, AOPC 2017: Space Optics and Earth Imaging and Space Navigation, 104630K (24 October 2017), Beijing, China*. doi: 10.1117/12.2282195
1434. А. Ради, С. Нассар, Н. Эль-Шейми. Модели стохастических погрешностей инерциальных датчиков смартфонов, учитывающие динамику движения. *Гироскопия и навигация*, 25 (99), 2017, 35 - 59. DOI 10.17285/0869-7035.2017.25.4.035-059
1435. J.M.R. Velazquez, F. Mailly, P. Nouet. A generic model for sensor simulation at system level. *2018 Symposium on Design, Test, Integration & Packaging of MEMS and MOEMS (DTIP), 22-25 May 2018, Roma, Italy. IEEE, 2018*. DOI: 10.1109/DTIP.2018.8394198
1436. J.M.R. Velazquez, F. Mailly, P. Nouet. System-level simulations of multi-sensor systems and data fusion algorithms. *Microsystem Technologies*, 2018. <https://doi.org/10.1007/s00542-018-4204-8>
1437. Z. Chao, F. Pu, Y. Yin, B. Han, X. Chen. Research on real-time local rainfall prediction based on MEMS sensors. *Journal of Sensors, Volume 2018, Article ID 6184713, 9 pages, 2018*.  
<https://doi.org/10.1155/2018/6184713>
1438. A. Radi, S. Nassar, N. El-Sheimy. Stochastic error modeling of smartphone inertial sensors for navigation in varying dynamic conditions. *Gyroscope and Navigation*, 9 (2018), 76 - 95.  
<https://doi-org.ins2i.bib.cnrs.fr/10.1134/S2075108718010078>
1439. N. Zhou, G. Xu, J. Wei, L. Tang. Relative height measurement based on collaborative information fusion of acceleration and barometric pressure. *Ferroelectrics*, 530 (2018), 73-81.  
<https://doi.org/10.1080/00150193.2018.1453121>

1440. S.B. Bortolami, B. Morton, J.-P.J. Laine. Fused sensor ensemble for navigation and calibration process therefor. *United States Patent Application Publication, Pub. No.: US 2018/0066943 A1, Mar.8, 2018.*
1441. A. Radi, G. Bakalli, S. Guerrier, N. El-Sheimi, A.B. Sesay, R. Molinari. A multisignal wavelet variance-based framework for inertial sensor stochastic error modeling. *IEEE Transactions on Instrumentation and Measurement*, 68(2019), 4924–4936. DOI: 10.1109/TIM.2019.2899535
1442. S.J. Pereira. *On the utilization of Simultaneous Localization and Mapping (SLAM) along with vehicle dynamics in Mobile Road Mapping Systems*, PhD Dissertation, Virginia Polytechnic Institute and State University, Blacksburg, Virginia, 2019.
1443. S. Chen, H. Liu, X. Liu, Q. Yu. Non-cooperative maritime target position and velocity measuring method based on monocular trajectory intersection for video satellite. *Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering*, 233(2019), 44–56. DOI: 10.1177/0954410017727023
1444. B. Ubezio, S. Sharma, G. Van der Meer, M. Taragna. Kalman filter based sensor fusion for a mobile manipulator. *Proceedings of the ASME 2019 International Design Engineering Technical Conferences and Computers and Information in Engineering Conference IDETC/CIE 2019, August 18-21, 2019, Anaheim, CA, USA.*
1445. J. Madeiras, C. Cardeira, P. Oliveira. Vision-aided complementary filter for attitude and position estimation: Design, analysis and experimental validation. *IFAC PapersOnLine*, 52-12 (2019), 388–393. DOI: 10.1016/j.ifacol.2019.11.274
1446. A.P. Wiegman. *Fault-Tolerant Sensor Fusion for Aircraft Height Estimation*, Thesis presented in partial fulfillment of the requirements for the degree of Master of Engineering in Electric and Electronic Engineering in the Faculty of Engineering at Stellenbosch University, Matieland, South Africa, 2019.
1447. S. Wibowo. *Hybrid Visual-Inertial/Magnetic 3D Pose Estimation for Tracking Poorly-Textured / Textureless Symmetrical Objects*, PhD Thesis, University of Sheffield, Sheffield, UK, 2019.
1448. J. Shimizu, K. Hata, Y. Koike, H. Morino, E. Enomoto, M. Husna, N. Hirohashi, E. Shimizu, K. Sakata. Simulation on improvement of position estimation accuracy in underwater using MEMS IMU. *2019 International Conference on Electronics, Information, and Communication (ICEIC), 22-25 Jan. 2019, Auckland, New Zealand.* IEEE, 2019. DOI: 10.23919/ELINFOCOM.2019.8706500
1449. И.Е. Лысенко, Н.Ф. Кидяев, Д.Ю. Севостьянов, А.В. Ярцев. Моделирование двухосевого микромеханического гироскопа-акселерометра. *Известия Южного федерального университета. Технические науки*, 6(2019), 6–15. DOI: 10.23683/2311-3103-2019-6-6-15
1450. А.А. Крылов. Исследование неустойчивости дрейфа нуля МЭМС-гироскопов и способов её учёта при калибровке. *Известия Тульского государственного университета. Технические науки*, Вып. 1, 2020, 64-69.
1451. B. Xiao, Y. Jiang, Q. Liu, X. Liu, M. Sun. A survey of error analysis and calibration methods for MEMS triaxial accelerometers. *Computers, Materials & Continua*, 64 (2020), 389–399. <https://doi.org/10.32604/cmc.2020.06092>
1452. H. Bai, C.N. Taylor. A variational bayesian approach for estimating system parameters and process noise. *2020 IEEE 23rd International Conference on Information Fusion (FUSION), 6-9 July 2020, Rustenburg, South Africa.* IEEE, 2020. DOI: 10.23919/FUSION45008.2020.9190234
1453. J. Świątek, K. Brzostowski, J. Drapała. Non-Gaussian noise reduction in measurement signal processing. In: *P. Kulczycki, J. Korbicz, J. Kacprzyk (Eds), Automatic Control, Robotics, and Information Processing. Studies in Systems, Decision and Control, vol 296.* Springer, Cham., 2021. [https://doi.org/10.1007/978-3-030-48587-0\\_4](https://doi.org/10.1007/978-3-030-48587-0_4)



1454. H.T. Butt, M. Musahl, M.A. Sanchez, P. Murthy, K. Ankit, D. Stricker. Simultaneous end user calibration of multiple magnetic inertial measurement units with associated uncertainty. *IEEE Access*, 2021. DOI: 10.1109/ACCESS.2021.3057579
- M.M. Konstantinov, P.Hr. Petkov, N.D. Christov.** Nonlocal perturbation analysis of the Schur system of a matrix. *SIAM Journal on Matrix Analysis and Applications*, vol. 15, 1994, pp. 383-392.
1455. A. Barrlund. How integrals can be used to derive matrix perturbation bounds. In: M. Gyllenberg, L.E. Persson (Eds.), *Analysis, Algebra, and Computers, Lecture Notes in Pure and Applied Mathematics*, Marcel Dekker, 1994. ISBN: 0-8247-9217-3.
1456. J. Sun. *Perturbation analysis of system Hessenberg and Hessenberg/triangular forms*. Rep. UMINF-94.02, Dept. Comput. Sci., Inst. Inform. Proc., Umeå (Sweden) 1994.
1457. J. Sun. On perturbation bounds for the QR factorization. *Linear Algebra and its Applications*, 215 (1995), 95-111.
1458. J. Sun. Perturbation bounds for the generalized Schur decomposition. *SIAM Journal on Matrix Analysis and Applications*, 16 (1995), 1328-1340.
1459. J. Sun. Perturbation analysis of system Hessenberg and Hessenberg-triangular forms. *Linear Algebra and its Applications*, 241/243 (1996), 811-849.
1460. P.G. Howlett, A.P. Torokhti. Nonlocal sensitivity analysis of the eigensystem of a matrix with distinct eigenvalues. *Numerical Functional Analysis and Optimization*, 18(1997), 367-382.
1461. X.S. Chen. Perturbation bounds for the periodic Schur decomposition. *BIT Numerical Mathematics*, 50 (2010), 41-58.
1462. X.S. Chen, W. Li, W.W. Xu. Perturbation analysis of the eigenvector matrix and singular vector matrices. *Taiwanese Journal of Mathematics*, 16 (2012), 179-194.
1463. X.S. Chen, W. Li, M.K. Ng. Perturbation analysis for antitriangular Schur decomposition. *SIAM Journal on Matrix Analysis and Applications*, 33(2012), 325-335. DOI: 10.1137/110841370
1464. J. Nie. Nearly low rank tensors and their approximations. *Cornell University Library, ArXiv e-prints in Numerical Analysis [math.NA]* 1412.7270v1, 2014, 1-23.  
Available at <http://arxiv.org/abs/1412.7270v1>
1465. J. Nie. Low rank symmetric tensors approximations. *SIAM Journal on Matrix Analysis and Applications*, 38 (2017), 1517 - 1540. <https://doi.org/10.1137/16M1107528>
1466. N. Colombo, N. Vlassis. Stable spectral learning based on Schur decomposition. *31st Conference on Uncertainty in Artificial Intelligence, Amsterdam, Netherlands, July 12-16, 2015*.  
<http://auai.org/uai2015/proceedings/papers/202.pdf>

## 2016 r.

1467. N. Colombo, N. Vlassis. Tensor Decomposition via Joint Matrix Schur Decomposition. *Proceedings of the 33rd International Conference on Machine Learning, New York, NY, USA, 2016*. JMLR: W&CP volume 48.
1468. N. Colombo, N. Vlassis. A posteriori error bounds for joint matrix decomposition problems. *Advances in Neural Information Processing Systems 29, D. D. Lee, M. Sugiyama, U. V. Luxburg, I. Guyon and R. Garnett, Eds., Curran Associates, Inc., 2016, 4943-4950*,  
<http://papers.nips.cc/paper/6424-a-posteriori-error-bounds-for-joint-matrix-decomposition-problems.pdf>

1469. N. Colombo, N. Vlasis. Approximate joint matrix triangularization. *Cornell University Library, ArXiv e-prints in Numerical Analysis [cs.NA] 1607.00514, 2016, 1-19*. Available at <http://arxiv.org/abs/1607.00514v1>
  1470. N. Colombo, J. Thunberg, J. Goncalves. Global optimality bounds for ICA algorithms. *22nd International Symposium on Mathematical Theory of Networks and Systems, July 12-15, 2016, Minneapolis, USA*. <http://hdl.handle.net/10993/28005>
  1471. K. Fackeldey, A. Sikorski, M. Weber. Spectral clustering for non-reversible Markov chains, *Report 18-48, Zuse Institut Berlin, 2018*. ISSN 1438-0064
  1472. K. Fackeldey, A. Sikorski, M. Weber. Spectral clustering for non-reversible Markov chains, *Computational and Applied Mathematics, Springer, 2018*. <https://doi-org.ins2i.bib.cnrs.fr/10.1007/s40314-018-0697-0>
  1473. I. Popchev. Why perturbations? *Cybernetics and Information Technologies*, 20 (2020), 170–175. DOI: 10.2478/cait-2020-0054
- P.H. Petkov, N.D. Christov, M.M. Konstantinov.** Robust real-time control of a two-rotor aerodynamic system. *IFAC Proceedings Volumes*, 41(2008), 6422-6427.
1474. E. Harlanova, S. Yordanova, Z. Ivanov, L. Dimitrov. Multivariable fuzzy logic control of aerodynamic plant. Proceedings of the 1st International Conference on Manufacturing Engineering, Quality and Production Systems, Brasov, Romania, September 24-26, 2009. "Advances in Manufacturing Engineering, Quality and Production Systems" (N.B. Lupulescu, D. Lepadatescu, N.E. Mastorakis, Eds.), Vol. II, Mathematics and Computers in Science and Engineering Series, WSEAS, Athens, 2009, 365-370.
  1475. Q. Ahmed, A.I.Bhatti, S.Iqbal, I.H. Kazmi. 2-sliding mode based robust control for 2-dof helicopter. *Proceedings of the 11th International Workshop on Variable Structure Systems, Mexico City, Mexico, June 26 - 28, 2010, 481-486*.
  1476. S. Yordanova, E. Haralanova. Design and implementation of robust multivariable PI-like fuzzy logic controller for aerodynamic plant. *International Journal of Advanced Intelligence Paradigms*, 3 (2011), 257-272. ISSN 1755-0386, DOI 10.1504/IJAIP.2011.043430
  1477. С. Йорданова. Методи за синтез на размити регулатори за робастно управление на процеси. ИК "Кинг София, 2011. ISBN: 978-954-9518-68-9
  1478. R. Madonski, M. Michalek. Odporne sterowanie ADRC w układowie z wielowymiarowym obiektem aerodynamicznym. *XVII Krajowa Konferencja Automatyki – KKA'2011, 19-22.06.2011, Kielce-Cedzyna, Poland, 10 pp*.
  1479. O. Salas, H. Castañeda, J. De Leon-Morales. Attitude observer-based robust control for a twin rotor system. *Kybernetika*, 49 (2013), 809-828.
  1480. P. Gorczyca, M. Rosol, A. Turnau, D. Marchewka, K. Kolek. Model and identification of aerodynamic one rotor system. *Modelowanie Inzynierskie*, 18 (2013), 12-17. ISSN 1896-771X
  1481. O. Salas, H. Castañeda, J. DeLeón-Morales. Observer-based adaptive super twisting control strategy for a 2-DOF helicopter. *2013 International Conference on Unmanned Aircraft Systems (ICUAS'13), May 28-31, 2013, Atlanta, GA, USA, 10 pp*.
  1482. M.B. Radac, R.C. Roman, R.E. Precup. Data-based tuning of linear controllers for MIMO twin rotor systems. IEEE EUROCON Conference, 1-4 July, 2013, Zagreb, Croatia. IEEE, 2013, 1915-1920. ISBN: 978-1-4673-2230-0, DOI: 10.1109/EUROCON.2013.6625240

1483. O. Salas. Observer-based attitude control for a two-rotor aerodynamical system. *Proceedings of the 6th International Conference on Physics and Control, San Luis Potosi, México, August 26th-29th, 2013, 9 pp.*
1484. O. Salvador Salas Peña. *Diseño de Controladores no Lineales para un Helicóptero a Escala*. Tesis en opción al grado de Doctor en Ingeniería Eléctrica, Facultad de Ingeniería Mecánica y Eléctrica, Universidad Autónoma de Nuevo León, Cd. Universitaria, Nuevo Leon, México, 2013.
1485. J. Vishnupriyan, P.S. Manoharan, A.P.S. Ramalakshmi. Uncertainty modeling of nonlinear 2-DOF helicopter model. *2014 International Conference on Computer Communication and Informatics (ICCCI), 3-5 January 2014, Coimbatore, India. IEEE, 2014, 6 pages.*  
DOI: 10.1109/ICCCI.2014.6921840
1486. R.C. Roman, M.B. Radac, R.E. Precup. Data-driven optimal model-free control of twin rotor aerodynamic systems. *2015 IEEE International Conference on Industrial Technology (ICIT), 17-19 March 2015, Seville, Spain. IEEE, 2015, 161 - 166.* DOI: 10.1109/ICIT.2015.7125093
1487. M.-B. Radac, R.-E. Precup, E.M. Petriu. Model-free primitive-based iterative learning control approach to trajectory tracking of MIMO systems with experimental validation. *IEEE Transactions on Neural Networks and Learning Systems, 26(2015), 2925-2938.* ISSN: 2162-237X, DOI: 10.1109/TNNLS.2015.2460258
- 2016 r.**
1488. S. Ijaz, M.T. Humayun, L. Yan, M.F. Mumtaz. Fractional order modeling and control of twin rotor aero dynamical system using Nelder Mead optimization. *Journal of Electrical Engineering & Technology, 11 (2016), 1863-1871.* <http://dx.doi.org/10.5370/JEET.2016.11.6.1863>
1489. M. Ahmad, A. Ali, M.A. Choudhry. Fixed structure  $H_\infty$  controller design for two-rotor aero/-dynamical system (TRAS). *Arabian Journal for Science and Engineering, 41 (2016), 3619-3630.*  
DOI: 10.1007/s13369-016-2232-1
1490. T.V. Phuong. *Designing Adaptive Tracking Controller For Non-Linear MIMO Systems Using CMAC*, PhD Thesis, Ho Chi Minh City Transport University, Ho Chi Minh, Vietnam, 2019.
1491. R. Hassan, A. Hossam, A. El-Badawy. Robust H-infinity Control for a Bi-rotor System. *AIAA Scitech 2020 Forum, 6-10 January 2020, Orlando, FL., Paper AIAA 2020-1834.*  
DOI: 10.2514/6.2020-1834
1492. D.M. Ezekiel, R.Samikannu, M. Oduetse. Modelling of the twin rotor MIMO system (TRMS) using the First Principles Approach. *2020 International Conference on Computer Communication and Informatics (ICCCI), 22-24 Jan. 2020, Coimbatore, India. IEEE, 2020.*  
DOI: 10.1109/ICCCI48352.2020.9104156
1493. M. Kumar, Y.V. Hote. Real-time performance analysis of PID2 controller for nonlinear twin rotor TITO aerodynamical system. *Journal of Intelligent & Robotic Systems, 101 (2021).*  
DOI: 10.1007/s10846-021-01322-4
1494. M. Milojkovic, M. Milovanovic, S.S. Nikolic, M. Spasic, A. Antic. Designing optimal models of nonlinear MIMO systems based on orthogonal polynomial neural networks. *Mathematical and Computer Modelling of Dynamical Systems, 27 (2021), 246-262.*  
DOI: 10.1080/13873954.2021.1909069
1495. Y. Zheng, G. Zhang. Data-driven two degrees of freedom controller design for MIMO system via VRFT approach. *2020 Chinese Control And Decision Conference (CCDC), 22-24 Aug. 2020, Hefei, China. IEEE, 2021.* DOI: 10.1109/CCDC49329.2020.9164748

- M.M. Konstantinov, V. Mehrmann, P.Hr. Petkov.** On properties of Sylvester and Lyapunov operators. *Linear Algebra and its Applications*, vol. 312, 2000, pp. 35-71.
1496. T. Stykel. Numerical solution and perturbation theory for generalized Lyapunov equations. *Linear Algebra and its Applications*, 349 (2002), 155-185.
1497. J. Sun. Condition numbers of algebraic Riccati equations in the Frobenius norm. *Linear Algebra and its Applications*, 350 (2002), 237-261.
1498. T. Stykel. *Analysis and numerical solution of generalized Lyapunov equations*. PhD Thesis, Institut für Mathematik, Technische Universität Berlin, 2002.
1499. H. Abou-Kandil, G. Freiling, V. Ionescu, G. Jank. *Matrix Riccati Equations in Control and System Theory*. Birkhäuser Verlag, Basel, 2003. ISBN 3-7643-0085X
1500. V. Angelova. Perturbation analysis for the complex linear matrix equation  $\alpha X + \sigma A^H X A = I$ ,  $\alpha, \sigma = \pm 1$ . *Comptes rendus de l'Académie bulgare des Sciences*, 56(2003), 47-52.
1501. J.F. Camino. *Optimization over Convex Matrix Inequalities*. PhD Thesis, University of California, San Diego, 2003.
1502. J.F. Camino, J.W. Helton, R.E. Skelton. Solving matrix inequalities whose unknowns are matrices. *Proceedings of the 43rd IEEE Conference on Decision and Control, Paradise Island, Bahamas, Dec. 2004*, 3160-3166 (CD Rom).
1503. J.F. Camino, J.W. Helton, R.E. Skelton. Solving matrix inequalities whose unknowns are matrices. *SIAM Journal on Optimization*, 17 (2006), 1-36.
1504. C. David, P. Sagaut. Theoretical optimization of finite difference schemes. *Discrete and Continuous Dynamical Systems, Supplement Volume 2007*, 1-10.
1505. C. David. Finite difference schemes as a matrix equation. *Cornell Univ. Library, ArXiv e-prints in Mathematics AP/0606532*, 2006, 1-11. Available at <http://arxiv.org/pdf/math.AP/0606532>
1506. C. David, P. Sagaut. DRP scheme optimization. *Cornell Univ. Library, ArXiv e-prints in Mathematics AP/0611846*, 2006, 1-10. Available at <http://arxiv.org/pdf/math.AP/0611846>
1507. B. Zhou, G.-R. Duan, Z. Zhong. Controllability, observability and stabilizability of a class of matrix linear systems. *International Journal of Innovative Computing Information and Control*, 5 (2009), 3207-3216.
1508. M.C. de Oliveira, J.W. Helton. Solvability of linear matrix equations in a symmetric matrix variable. *Proceedings of the 49th IEEE Conference on Decision and Control (CDC), Atlanta, GA, 15-17 Dec. 2010*, 804-809.
1509. X. Tong, Y. Jin, L. Li. An improved weighted total least squares method with applications in linear fitting and coordinate transformation. *Journal of Surveying Engineering - ASCE*, 137(2011), 120-128. DOI: 10.1061/(ASCE)SU.1943-5428.00000055
1510. M.C. de Oliveira. Simplification of symbolic polynomials on non-commutative variables. *Linear Algebra and its Applications*, 437(2012), 1734-1748.
1511. X. Ge, T. Wunderlich. Target identification in terrestrial laser scanning. *Survey Review*, 2014. ISSN: 0039-6265, DOI: 10.1179/1752270614Y.0000000097
1512. C. Hu, Y. Chen, W.D. Zhu. Generalised total least squares solution based on pseudo-observation method. *Survey Review*, 2015. ISSN: 0039-6265, DOI: 10.1179/1752270614Y.0000000155

1513. A.H. Bentbib, M. El Guide, K. Jbilou. Matrix Krylov subspace methods for image restoration. *New Trends in Mathematical Sciences*, 3 (2015), 136–148.

## 2016 r.

1514. S. Chen, Y. Tian. On the singular vectors of the generalized Lyapunov operator. *Operators and Matrices*, 2016, Paper OaM-1378, 1-14. ISSN: 1846-3886
1515. J.R. Chavez Fuentes, O.R. Gonzales, W. Steven Gray. Stability, performance and sensitivity analysis of L.I.D. jump linear systems. *International Journal of Control*, 91 (2018). <https://doi.org/10.1080/00207179.2017.1318451>
1516. M. Behr, P. Benner, J. Heiland. Solution formulas for differential Sylvester and Lyapunov equations. *Calcolo*, 56 (2019). <https://doi.org/10.1007/s10092-019-0348-x>
1517. K. Schrempf. Horner systems: How to efficiently evaluate non-commutative polynomials (by matrices). *Cornell Univ. Library, ArXiv e-prints in Rings and Algebras/1910.01401*, 2019, 1-25. Available at <http://arxiv.org/abs/1910.01401>
1518. C. Bhawal, D. Pal, M. N. Belur. On circulant Lyapunov operators, two-variable polynomials, and DFT. *2019 Sixth Indian Control Conference (ICC), 18-20 Dec. 2019, Hyderabad, India*. IEEE, 2019, 391–396. DOI: 10.1109/ICC47138.2019.9123167
1519. D. Palitta, V. Simoncini. Optimality properties of Galerkin and Petrov–Galerkin methods for linear matrix equations. *Vietnam Journal of Mathematics*, 2020. <https://doi.org/10.1007/s10013-020-00390-7>
1520. N. Kalantarova, L. Tunçl. On the spectral structure of Jordan-Kronecker products of symmetric and skew-symmetric matrices. *Linear Algebra and its Applications*, 608(2021), 343–362. <https://doi.org/10.1016/j.laa.2020.08.022>

**M.M. Konstantinov, P.Hr. Petkov, N.D. Christov.** Invariants and canonical forms for linear multivariable systems under the action of orthogonal transformations groups. *Kybernetika*, vol. 17, pp. 413–424, 1981.

1521. D. Hinrichsen, A. Linnemann. *Normalformen vom Hermite-typ und die berechnung dominanter Hermite-indizes strukturierter systeme*. Report Nr. 76, Forschungsschwerpunkt Dynamische Systeme, University of Bremen, Bremen 1982.
1522. M. Denham, C. Benson, T. Williams. A robust computational approach to control system analysis and design. In “*Computer Aided Design of Multivariable Technological Systems*”, (G. Leininger, ed.). *Proceedings of the 2nd IFAC Symposium, West Lafayette 1982*, 667-672. Pergamon Press, Oxford 1983.
1523. D. Hinrichsen, A. Linnemann. Normalformen vom Hermite-Typ und die Berechnung dominanter Hermite-Indizes strukturierter Systeme (Hermite-type canonical forms and the computation of dominant Hermite indices for structured systems), *Regelungstechnik*, 32 (1984), 4, 124-130.
1524. R. Patel. An algorithm for eigenvalue assignment in multi-input systems. *Journal of the Franklin Institute*, 318 (1984), 123-141.
1525. R. Patel, P. Misra. Numerical algorithms for eigenvalue assignment by state feedback. *Proceedings of the IEEE*, 27 (1984), 1755-1764.
1526. Р. Пейтел, П. Мисра. Численный алгоритм решения задачи о собственных значениях с помощью обратной связи по состоянию. *ТИИЭР*, 72 (1984), 106-117.

1527. M. Denham. A software library and interactive design environment for computer aided control system design. In *"Computer-Aided Control System Eng."* (M. Jamshidi, C. Herget, eds.), North-Holland, Amsterdam 1985, 301-314. ISBN 0-444-87779-7.
1528. М. Денем. Библиотека прикладных программ и интерактивные средства для автоматизированного проектирования систем управления. В *"Автоматизированное проектирование систем управления"* (М. Джамшиди, Ч. Хергет, ред.), Машиностроение, М. 1989, 269-280. ISBN 5-217-00618-8
1529. R. Patel. Algorithms for eigenvalue assignment in multivariable systems. In *"Computer-Aided Control System Eng."* (M. Jamshidi, C. Herget, eds.), North-Holland, Amsterdam 1985, 315-345 ISBN 0-444-87779-7
1530. Р. Пейтел. Алгоритмы размещения собственных значений в многосвязных системах. В *"Автоматизированное проектирование систем управления"* (М. Джамшиди, Ч. Хергет, ред.), Машиностроение, М. 1989, 280-309. ISBN 5-217-00618-8
1531. И. Асмыкович, Р. Габасов, Ф. Кириллова, В. Марченко. Задачи управления конечномерными системами. *Автоматика и Телемеханика*, 47 (1986), 5-29.
1532. I. Asmykovich, R. Gabasov, F. Kirillova, V. Marchenko. Problems of controlling finite dimensional systems. *Automation and Remote Control*, 47 (1986), 1461-1483.
1533. A. Laub, A. Linnemann. Hessenberg and Hessenberg/triangular forms in linear system theory. *International Journal of Control*, 44 (1986), 1523-1547. [Reprinted in *"Numerical Linear Algebra Techniques for Systems and Control"*, A Selected Reprint Volume (R. Patel, A. Laub, P. Van Dooren, eds.), IEEE Press, New York, 1994, 87-108. ISBN 0-7803-0443-8].
1534. R. Patel, P. Misra. Numerical computation of decentralized fixed modes. *Automatica*, 27 (1991), 375-382. [Reprinted in *"Numerical Linear Algebra Techniques for Systems and Control"*, A Selected Reprint Volume (R. Patel, A. Laub, P. Van Dooren, eds.), IEEE Press, New York, 1994, 296-303. ISBN 0-7803-0443-8]
1535. Х. Икрамов. О размещений полюсов линейных стационарных систем. *Вычислительные процессы и системы*, 9, Наука, М. 1993, 35-162.
1536. J. Sun. *Perturbation analysis of system Hessenberg and Hessenberg/triangular forms*. Report UMINF-94.02, Department of Computer Science, Institute of Information Processing, Umeå (Sweden) 1994.
1537. J. Sun. Perturbation analysis of system Hessenberg and Hessenberg-triangular forms. *Linear Algebra and its Applications*, 241/243 (1996), 811-849.
1538. *"Numerical Linear Algebra Techniques for Systems and Control"*, A Selected Reprint Volume (R. Patel, A. Laub, P. Van Dooren, eds.), IEEE Press, New York, 1994, 1-35. ISBN 0-7803-0443-8
1539. P. Van Dooren. Software for Control System Analysis and Design, Singular Value Decomposition. In: *Wiley Encyclopedia of Electrical and Electronics Engineering*, John Wiley & Sons, 1999. DOI: 10.1002/047134608X.W1040
1540. V. Mehrmann, H. Xu. Numerical methods in control. *Journal of Computational and Applied Mathematics*, 123 (2000), 371-394.

**J. Krlev, Ts. Slavov, P. Petkov.** Design and experimental evaluation of robust controllers for a two-wheeled robot. *International Journal of Control*, 89 (2016), 2201-2226.

**2016 г.**

1541. Г.Ст. Георгиев. *Анализ и синтез на робастни системи за управление на манипулатор с еластично звено*. Дисертация за присъждане на образователна и научна степен „доктор“ по научната специалност „Автоматизация на производството“. Русенски университет „Ангел Кънчев“, 2016.
1542. X. Tian, H. Peng, X. Zeng, F. Zhou, W. Xu, X. Peng. A modelling and predictive control approach to linear two-stage inverted pendulum based on RBF-ARX model. *International Journal of Control*, 2019. <https://doi.org/10.1080/00207179.2019.1594386>
1543. G.P. Neves, B.A. Angélico, C.M. Agulhari. Robust  $H_2$  controller with parametric uncertainties applied to a reaction wheel unicycle. *International Journal of Control*, 2018. DOI: 10.1080/00207179.2018.1562224
1544. P. Naga, S. Batmanian. *Control and balancing of a small vehicle with two wheels for autonomous driving*. Degree Project in Vehicle Engineering, Second Cycle, KTH Royal Institute of Technology, School of Engineering Sciences, Stockholm, Sweden, 2019. <https://www.diva-portal.org/smash/get/diva2:1380196/FULLTEXT01.pdf>
1545. S. Sherif, V. Kanchev. Identification of humanoid biped robot during walking with linear regression models. *2019 22nd International Conference on Process Control (PC19), 11-14 June 2019, Strbske Pleso, Slovakia*. IEEE, 2019. DOI: 10.1109/PC.2019.8815031
1546. D. Liu, X. Lu. Design of high precision intelligent controller for ocean robot, *Journal of Coastal Research*, 97(sp1), 2019, 15-22. <https://doi.org/10.2112/SI97-003.1>
1547. S. Guan, X. Liu. EEG signal radio frequency control wheeled robot based on bi-objective chaotic particle swarm optimization algorithm. *IOP Conference Series: Materials Science and Engineering*, 686 (2019) 012008. doi:10.1088/1757-899X/686/1/012008
1548. S.J. Goes, G.P. das Neves, B.A. Angélico. Robo de duas rodas autoequilibrado seguidor de linha. Escola Politécnica da USP, Depto. de Engenharia de Telecomunicacoes e Controle, Sao Paulo, SP, Brasil, 2018.

**L. Mollov, J. Kraleov, T. Slavov, P. Petkov.**  $\mu$ -Synthesis and hardware-in-the-loop simulation of miniature helicopter control system. *Journal of Intelligent and Robotic Systems*, 76(2014), 315-351.

1549. C. Xiang, W. Fan, H. Liu, B. Xu. Modeling and simulation analysis of an unmanned tandem ducted fan vehicle with tilting system. *2015 International Conference on Unmanned Aircraft Systems (ICUAS), 9-12 June 2015, Denver, CO, USA. IEEE, 2015, 1196 - 1204*. ISBN: 978-1-4799-6009-5, DOI: 10.1109/ICUAS.2015.7152412
1550. Y. Ma, B. Huang, C. Xiang, W. Wang. Forward flight attitude control of unmanned small-scaled gyroplane based on  $\mu$ -synthesis. *2015 International Conference on Unmanned Aircraft Systems (ICUAS), 9-12 June 2015, Denver, CO, USA. IEEE, 2015, 1338 - 1345*. ISBN: 978-1-4799-6009-5, DOI: 10.1109/ICUAS.2015.7152428

#### **2016 г.**

1551. P. Xiao, Q. Wang, L. Niu, H. Gao. Research on suspension system with embedded-permanent-magnet magnetorheological damper based on V-model. *Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science*, 230 (2016), 1602-1614. DOI: 10.1177/0954406215583691
1552. F. Yacef, O. Bouhall, M. Hamerlain, N. Rizoug. Observer-based adaptive fuzzy backstepping tracking control of quadrotor unmanned aerial vehicle powered by Li-ion battery. *Journal of Intelligent and Robotic Systems*, 2016. DOI 10.1007/s10846-016-0345-0

1553. X. Fang, A. Wu, Y. Shang, N. Dong. Robust control of small-scale unmanned helicopter with matched and mismatched disturbances. *Journal of the Franklin Institute*, 2016.  
<http://dx.doi.org/10.1016/j.jfranklin.2016.09.016>
1554. M. He, J. He, X. Zhou. Robust flight control of a small unmanned helicopter. *Jiqiren/Robot*, 38 (2016), Pages 337-342 and 351. DOI: 10.13973/j.cnki.robot.2016.0337
1555. Г.Ст. Георгиев. *Анализ и синтез на робастни системи за управление на манипулатор с еластично звено*. Дисертация за присъждане на образователна и научна степен „доктор“ по научната специалност „Автоматизация на производството“. Русенски университет „Ангел Кънчев“, 2016.
1556. R. Amin, A. Li. Modelling and robust attitude trajectory tracking control of 3-DOF four rotor hover vehicle. *Aircraft Engineering and Aerospace Technology*, 89 (2017), 87-98. doi: 10.1108/AEAT-11-2015-0236
1557. H. Miaolei, H. Jilin, Z. Xuanyi. Robust flight control of a small unmanned helicopter. *ROBOT*, 38 (2016), 337 - 351. DOI: 10.13973/j.cnki.robot.2016.0337
1558. H. Miaolei, H. Jilin. A real-time  $H_\infty$  cubature Kalman filter based on SVD and its application to a small unmanned helicopter. *Optik*, 140(2017), 96-103.  
<http://dx.doi.org/10.1016/j.ijleo.2017.04.021>
1559. K. Yan, Q. Wu, M. Chen. Robust adaptive backstepping control for unmanned autonomous helicopter with flapping dynamics. *2017 13th IEEE International Conference on Control & Automation (ICCA)*, 3-6 July 2017, Ohrid, Macedonia. IEEE, 2017. DOI: 10.1109/ICCA.2017.8003202
1560. K. Yan, M. Chen, Q. Wu, K. Lu. Robust attitude fault-tolerant control for unmanned autonomous helicopter with flapping dynamics and actuator faults. *Transactions of the Institute of Measurement and Control*, 2018. <https://doi.org/10.1177/0142331218775477>
1561. F. Yacef, N. Rizoug, L. Degaa, O. Bouhali, M. Hamerlain. Extended state observer-based adaptive fuzzy tracking control for a quadrotor UAV. *2018 5th International Conference on Control, Decision and Information Technologies (CoDIT)*, 10-13 April 2018, Thessaloniki, Greece. IEEE, 2018. DOI: 10.1109/CoDIT.2018.8394945
1562. X. Fang, F. Liu, Z. Ding. Robust control of unmanned helicopters with high-order mismatched disturbances via disturbance-compensation-gain construction approach. *Journal of the Franklin Institute* 355 (2018), 7158–7177. <https://doi.org/10.1016/j.jfranklin.2018.08.015>
1563. S. Panza, M. Sato, M. Lovera, K. Muraoka. Robust attitude control design of quad-tilt-wing UAV: A structured  $\mu$ -synthesis approach. *2018 IEEE Conference on Control Technology and Applications (CCTA)*, 21-24 Aug. 2018, Copenhagen, Denmark. IEEE, 2018. DOI: 10.1109/CCTA.2018.8511407
1564. I. Ullah and H.-L. Pei. Sliding mode tracking control for unmanned helicopter using extended disturbance observer. *Archives of Control Sciences*, 29(LXV), 2019, 169–199. DOI: 10.24425/acs.2019.127530
1565. K. Yan, M. Chen, Q. Wu, K. Lu. Robust attitude fault-tolerant control for unmanned autonomous helicopter with flapping dynamics and actuator faults. *Transactions of the Institute of Measurement and Control*, 2018. DOI: 10.1177/0142331218775477
1566. S. Ozcan, M.U. Salamci, V. Nalbantoglu. Multiloop state-dependent nonlinear time-varying sliding mode control of unmanned small-scale helicopter. *Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering*, 234(2020), 585–606. DOI: 10.1177/0954410019872116



1567. S. Ozcan, M.U. Salamci, V. Nalbantoglu. Nonlinear sliding sector design for multi-input systems with application to helicopter control. *Robust and Nonlinear Control*, 2020. <https://doi.org/10.1002/rnc.4877>
1568. F. Yacef, N. Rizoug, L. Degaa. Energy-efficiency path planning for quadrotor UAV under wind conditions. *2020 7th International Conference on Control, Decision and Information Technologies (CoDIT'20)*, Prague, Czech Republic / June 29 - July 2, 2020. DOI: 10.1109/CoDIT49905.2020.9263968
1569. S. Panza, M. Lovera, M. Sao, K. Muraoka. Structured  $\mu$ -synthesis of robust attitude control laws for quad-tilt-wing unmanned aerial vehicle. *Journal of Guidance, Control, and Dynamics*, 2020. <https://doi.org/10.2514/1.G005080>

**M.M. Konstantinov, P.Hr. Petkov, N.D. Christov.** Perturbation analysis of matrix quadratic equations. *SIAM Journal on Scientific and Statistical Computing*, vol. 11, 1990, pp. 1159-1163.

1570. В. Ангелова. *Пертурбационен анализ на линейни многомерни системи за управление*. Канд. дис., ИИТ-БАН, С. 1993.
1571. "Numerical Linear Algebra Techniques for Systems and Control", *A Selected Reprint Volume (R. Patel, A. Laub, P. Van Dooren, eds.)*, IEEE Press, New York, 1994, 1-35 (ISBN 0-7803-0443-8).
1572. C. MacInnes, R. Vaccaro. Tracking directions-of-arrival with invariant subspace updating. *Signal Processing*, 50 (1996), 137-150.
1573. A. Hansson, P. Hagander. *How to solve ill-posed semidefinite discrete-time algebraic Riccati equations*. Int. Rep. ISRN LUTFD2/TFRT-7554-SE, Dept. Automat. Control, Lund Inst. Techn., 1996.
1574. A. Hansson, P. Hagander. How to decompose semidefinite discrete-time algebraic Riccati equations. *European Journal of Control*, 5 (1999), 245-258.
1575. J. Sun. Perturbation theory for algebraic Riccati equations. *SIAM Journal on Matrix Analysis and Applications*, 19 (1998), 39-65.
1576. J. Sun. Condition numbers of algebraic Riccati equations in the Frobenius norm. *Linear Algebra and its Applications*, 350 (2002), 237-261.
1577. B.N. Datta. *Numerical Methods for Linear Control Systems*. Elsevier, Amsterdam 2004 (ISBN: 0-12-203590-9).
1578. M.K. Stoyanov. *Reduced Order Methods for large Scale Riccati Equations*, PhD dissertation, Faculty of Virginia Polytechnic Institute and State University, USA, 2009.
1579. K. Ponomareva. *Latent State Estimation in a Class of Nonlinear Systems*. PhD Thesis, Department of Mathematical Sciences, Brunel University, United Kingdom, 2012.

## 2016 г.

1580. P.C.-Y. Weng, F.K.H. Phoa. Perturbation analysis of continuous-time linear time-invariant systems. *Advances in Pure Mathematics*, 10(2020), 155-173. <https://doi.org/10.4236/apm.2020.104010>
1581. P.C.-Y. Weng. Perturbation analysis of rational Riccati equations. *Annals of Mathematical Sciences and Applications*, 5 (2020), 349-373. DOI: 10.4310/AMSA.2020.v5.n2.a6

1582. P.C.-Y. Weng, F.K.H. Phoa. Perturbation analysis and condition numbers of rational Riccati equations. *Annals of Mathematical Sciences and Applications*, 6 (2021), 25–49.  
DOI: 10.4310/AMSA.2021.v6.n1.a2

**M. Konstantinov, P. Petkov, N. Christov.** Sensitivity analysis of the feedback synthesis problem. *IEEE Transactions on Automatic Control*, vol. 42, 1997, pp. 568–573.

1583. H.K. Tam, J. Lam. An optimal differential sensitivity approach to pole assignment for structurally perturbed systems. *Journal of Dynamic Systems, Measurement, and Control, Transactions of the ASME*, 121(1999), 410–417.
1584. P.M. Van Dooren. *Numerical Linear Algebra for Signals Systems and Control*. Draft notes prepared for the Graduate School in Systems and Control, Univ. of Louvain, Louvain-la-Neuve, Belgium, 2003. Available at <http://www.inma.ucl.ac.be/~vdooren/PVDnotes.pdf>.
1585. I. I. Hamarash. Eigenvalue sensitivities of systems with state feedback to structured perturbations in system parameters. *WSEAS Transactions on Mathematics*, 5(2006), 746–749.
1586. I.I. Hamarash, A.M. Baqi, S. Abdulkarem. Sensitivity of closed loop system eigenvalues to structured perturbations in system parameters. *Proceedings of the 9th WSEAS International Conference on Applied Mathematics, Istanbul, Turkey, May 27-29, 2006*, 542–545.
1587. E.K.-W. Chu. Pole assignment via the Schur form. *Systems and Control Letters*, 56(2007), 303–314.
1588. T. Li, E.K.-W. Chu. A Schur-Newton algorithm for robust pole assignment. *Taiwanese Journal of Mathematics*, 11 (2007), 1485–1502.
1589. T. Li, E.K.-W. Chu, X. Zhao. Robust pole assignment via the Schur-Newton algorithms. *2011 International Conference on Multimedia Technology (ICMT), 26-28 July 2011, Hangzhou, China. IEEE, 2011, 2332–2335*. ISBN: 978-1-61284-771-9, DOI: 10.1109/ICMT.2011.6002622
1590. E.K.-W. Chu, C.-Y. Weng, C.-S. Wang, C.-C. Yen. Conditioning of state feedback pole assignment problems. *Taiwanese Journal of Mathematics*, 16 (2012), 283–304.

**M.M. Konstantinov, P.Hr. Petkov.** Note on “Perturbation theory for algebraic Riccati equations”. *SIAM Journal on Matrix Analysis and Applications*, vol. 21, 1999, p. 327.

1591. W. Lin, J. Sun. *Perturbation analysis of the periodic discrete-time algebraic Riccati equation*. Rep. UMINF 01.26, Dept. Comp. Sci., Umeå Univ., Umeå, Sweden, 2001.
1592. W. Lin, J. Sun. Perturbation analysis of the periodic discrete-time algebraic Riccati equation. *SIAM Journal on Matrix Analysis and Applications*, 24 (2002), 411–438.
1593. J. Sun. Condition numbers of algebraic Riccati equations in the Frobenius norm. *Linear Algebra and its Applications*, 350 (2002), 237–261.
1594. J.-G. Sun. Backward perturbation analysis of the periodic discrete-time algebraic Riccati equation. *SIAM Journal on Matrix Analysis and Applications*, 26(2004), 1–19.
1595. D.A. Bini, B. Ianazzo, B. Meini. *Numerical Solution of Algebraic Riccati Equations*. Society for Industrial and Applied Mathematics, Philadelphia, PA, 2012. ISBN 978-1-611972-08-5

1596. Z. Jia, M. Zhao, M. Wang, S. Ling. Solvability theory and iteration method for one self-adjoint polynomial matrix equation. *Journal of Applied Mathematics*, 2014, 7 p.. ISSN: 1110-757X, <http://dx.doi.org/10.1155/2014/681605>
- M.M. Konstantinov, M.O. Stanislavova, P.Hr. Petkov.** Perturbation bounds and characterization of the solution of the associated algebraic Riccati equation. *Linear Algebra and its Applications*, vol. 285, 1998, pp. 7-31.
1597. V. Angelova. Perturbation analysis for the matrix equation  $X = A_1 + \sigma A_2^H X^2 A_2, \sigma = \pm 1$ . *Годишник на УАСТ - София*, св. 2, *Мат. Мех.*, 41 (2000-2001), 33-41.
1598. A. Barraud, S. Lesecq, N. Christov. From sensitivity analysis to random floating point arithmetics - Application to Sylvester equations. *L. Vulkov, J. Wasniewski, P. Yalamov (Eds.): NAA 2000, Lecture Notes in Computer Science*, 1988 (2001), Springer, Berlin, 35-41.
1599. H.B. Minh, P. Rapisarda, H.L. Trentelman. Model reduction by retention of stationary trajectories. *Proc. 17th International Symposium on Mathematical Theory of Networks and Systems*, Kyoto, Japan, July 24-28, 2006, 1636-1642.
1600. D.A. Bini, B. Ianazzo, B. Meini. *Numerical Solution of Algebraic Riccati Equations*. Society for Industrial and Applied Mathematics, Philadelphia, PA, 2012. ISBN 978-1-611972-08-5
- M. Konstantinov, V. Mehrmann, P. Petkov.** Perturbed spectra of defective matrices. *J. Appl. Math.*, vol. 2003, 2003, pp. 115-140.
1601. B.J. McCartin. Pseudoinverse formulation of Rayleigh-Schrödinger perturbation theory for the symmetric matrix eigenvalue problem. *Journal of Applied Mathematics*, 2003 (2003), 459-485.
1602. B.J. McCartin. Pseudoinverse formulation of analytic Rayleigh-Schrödinger perturbation theory for the symmetric eigenvalue problem. *International Journal of Pure and Applied Mathematics*, 24 (2005), 267-281.
1603. B.J. McCartin. Pseudoinverse formulation of Rayleigh-Schrödinger perturbation theory for the symmetric definite generalized eigenvalue problem. *International Journal of Applied Mathematics*, 2 (2005), 159-171. <http://www.gbspublisher.com/ijams.htm>
1604. B.J. McCartin. Pseudoinverse formulation of analytic Rayleigh-Schrödinger perturbation theory for the symmetric definite generalized eigenvalue problem. *Global Journal of Pure and Applied Mathematics*, 2 (2006), 29p.
1605. B.J. McCartin. *Rayleigh-Schrödinger Perturbation Theory: Pseudoinverse Formulation*. Hikari Ltd., 2009. ISBN 978-954-91999-3-2
1606. M. Scott. Non-linear corrections to the time-covariance function derived from a multi-state chemical master equation. *IET Systems Biology*, 6 (2012), 116-124. ISSN: 1751-8849, DOI: 10.1049/iet-syb.2011.0031
1607. S. Bora, M. Karow. Structured eigenvalue perturbation theory. In: *Numerical Algebra, Matrix Theory, Differential-Algebraic Equations and Control Theory. Festschrift in Honor of Volker Mehrmann*. P. Benner, M. Bollhöfer, D. Kressner, C. Mehl, T. Stykel (Eds.), Springer, Heidelberg, 2015, 199-222. ISBN: 978-3-319-15259-2, DOI: 10.1007/978-3-319-15260-8\_8
- M.M. Konstantinov, P.H. Petkov.** Perturbation methods in linear algebra and control (Survey). *Applied and Computational Mathematics*, 7(2008), pp. 141-161.

1608. D. Petrova, A. Cheremensky. Linear control systems: Feedback and separation principles. *Applied and Computational Mathematics*, 8(2009), 114-129.
1609. F.A. Aliev, V.B. Larin. About use of the Bass relations for solution of matrix equations. *Applied and Computational Mathematics*, 8(2009), 152-162.
1610. M.M. Mutallimov, I.M. Askerov, N.A. Ismailov, M.F. Rajabov. An asymptotical method to construction a digital optimal regime for the gaslift process. *Applied and Computational Mathematics*, 9(2010), 77-84.
1611. I.P. Popchev, V.A. Angelova. Condition numbers and local perturbation bounds for the matrix equation  $X^s \pm A^H X^t A = Q$ . *Comptes rendus de l'Académie bulgare des Sciences*, 66(2013), 21-28.
1612. M. Bahsi. On the norms of circulant matrices with the generalized Fibonacci and Lucas numbers. *TWMS Journal of Pure and Applied Mathematics*, 6(2015), 84-92.

#### 2016 r.

1613. V. Angelova. Perturbation analysis of a nonlinear matrix equation arising in tree-like stochastic processes. In; *Advanced Computnig in Industrial Mathematics (BGSIAM 2017)*, K. Georgiev, M. Todorov and I. Georgiev (Eds.), *Studies in Computational Intelligence*, 793(2019), 37-50. DOI: 10.1007/978-3-319-97277-0\_4
1614. I. Popchev. Why perurbations? *Cybernetics and Information Technologies*, 20 (2020), 170-175. DOI: 10.2478/cait-2020-0054

**P.Hr. Petkov.** Perturbation bounds for orthogonal canonical forms and numerically controllability analysis. *IEEE Transactions on Automatic Control*, vol. 38, 1993, pp. 639-643.

1615. E. Quintana-Orti, G. Quintana-Orti, M. Castillo, V. Hernandez. Efficient algorithms for the block-Hessenberg form. *The Journal of Supercomputing*, 20 (2001), 55-66.
1616. D. Chu, M. Malabre, R.C.E. Tan. State feedback decoupling problem with stability for  $(A, B, C, D)$  quadruples. *SIAM Journal on Matrix Analysis and Applications*, 30(2009), 1735-1760. DOI: 10.1137/070692716

**M.M. Konstantinov, P.Hr. Petkov, D.W. Gu, I. Postlethwaite.** Two-dimensional measures of reachibility for linear time-invariant systems. *International Journal of Control*, vol. 64, 1996, pp. 195-215.

1617. I. Kawelke. *Perturbation and Error Analysis Considerations in Robust Control*. Ph.D. Thesis, Dept. Eng., Leicester University, Leicester 1997.

**M.M. Konstantinov, P.HR. Petkov, N.D. Christov.** Perturbation bounds for certain matrix expressions and numerical solution of matrix equations, *Numerical Analysis and its Applications*, S. Margenov, L.G. Vulkov and J. Wasniewski (Eds.). *Lecture Notes in Computer Science*, Springer-Verlag, Berlin, 2009, 5434, 68-79.

1618. K. Ponomareva. *Latent State Estimation in a Class of Nonlinear Systems*. PhD Thesis, Department of Mathematical Sciences, Brunel University, United Kingdom, 2012.

**J.K. Boneva, M.M. Konstantinov, P.Hr. Petkov.** Perturbation analysis for the complex matrix equation  $Q \pm A^H X^p A - X = 0$ . *Surveys in Mathematics and its Applications*, 2(2007), 29-41.

1619. I.P. Popchev, V.A. Angelova. Condition numbers and local perturbation bounds for the matrix equation  $X^s \pm A^H X^t A = Q$ . *Comptes rendus de l'Academy bulgare des Sciences*, 66(2013), 21-28.

1620. I. Popchev, V. Angelova. Residual bounds of the nonlinear matrix equation  $X + A^* F(X) A = Q$ . *International Journal of Data Science*, 1(2017). DOI: 10.1504/IJDS.2016.081370

**M. Konstantinov, P. Petkov, N. Cristof.** New results in perturbation analysis of matrix algebraic equations. *Applied and Computational Mathematics*, 9(2010), 153-161.

1621. M. Bahsi. On the norms of circulant matrices with the generalized Fibonacci and Lucas numbers. *TWMS Journal of Pure and Applied Mathematics*, 6(2015), 84-92.

**M.M. Konstantinov, P.H. Petkov, I.P. Popchev, V.A. Angelova.** Sensitivity of matrix equation  $A_0 + \sum_{i=1}^k \sigma_i A_i^* X^{p_i} A_i = 0, \sigma_i = \pm 1$ . *Applied and Computational Mathematics*, 10(2011), 409-426.

1622. F.A. Aliev, N.A. Ismailov, L.N. Temirbekova. Methods of solving the choice of extremal modes for the gas-lift process. *Applied and Computational Mathematics*, 11(2012), 348-357. ISSN: 1683-3511

1623. F.A. Aliev, N.I. Velieva, Y.S. Gasimov, N.A. Safarova, L.F. Agamalieva. High-accuracy algorithms to the solution of the optimal output feedback problem for the linear systems. *Proceedings of the Romanian Academy, Series A*, 13 (2012), 207-214.

1624. V.B. Larin. The unilateral quadratic matrix equation and problem of eigensensitivities of matrices. *Applied and Computational Mathematics*, 11(2012), 337-347. ISSN: 1683-3511

1625. A.A. Ali, V.I. Hasanov. On some sufficient conditions for the existence of a positive definite solution of the matrix equation  $X + A^* X^{-1} A + B^* X^{-1} B = I$ . *AIP Conference Proceedings*, 1690(2015). <https://doi.org/10.1063/1.4936739>

#### 2016 г.

1626. А.А. Али. Един итерационен метод за матричното уравнение  $X + A^* X^{-1} A - B^* X^{-1} B = I$ . *Научна конференция "MATTEX 2016 организирана от Факултета по математика и информатика на Шуменския университет "Епископ Константин Преславски том1, 74-80, Шумен, 2016.*

1627. V.I. Hasanov, D.I. Borisova. Perturbation estimates for the maximal solution of a nonlinear matrix equation. *Ann. Acad. Rom. Sci., Ser. Math. Appl.*, 9(2017), 28-43. ISSN 2066-6594

1628. V.I. Hasanov. On the matrix equation  $X + A^* X^{-1} A - B^* X^{-1} B = I$ . *Linear and Multilinear Algebra*, 2017. DOI: 10.1080/03081087.2017.1373730

1629. V.I. Hassanov. On perturbation estimates for the extreme solution of a matrix equation. *Ann. Acad. Rom. Sci., Ser. Math. Appl.*, 9(2017), 74-88. ISSN 2066-6594

1630. V.I. Hasanov. On a perturbation estimate for the extreme solution of the matrix equation  $X - A^* X^{-1} A = Q^*$ . *Innovativity in Modeling and Analytics Journal of Research*, vol. 2, 2017, pp.1-11. <http://imajor.info/JDA>

1631. V. Hasanov, S. Hakkaev. Newton's method for a nonlinear matrix equation. *Comptes rendus de l'Académie bulgare des Sciences*, 68(2015), 973-982.
1632. V.I.Hasanov, S.A.Hakkaev. Convergence analysis of some iterative methods for a nonlinear matrix equation. *Computers and Mathematics with Applications*, 72(2016), 1164-1176. <https://doi.org/10.1016/j.camwa.2016.06.035>
1633. D.I. Borisova, V.I. Hasanov. On some perturbation bounds for a matrix equation from interpolation problems. *Ann. Acad. Rom. Sci., Ser. Math. Appl.*, 10(2018), 297-313. ISSN 2066-6594
1634. B.-H. Huang, C.-F. Ma. Some iterative methods for the largest positive definite solution to a class of nonlinear matrix equation. *Numerical Algorithms*, 79(2018), 153-178. <https://doi.org/10.1007/s11075-017-0432-8>
1635. H.K. Nashine, S. Bose. Solution of a class of cross-coupled nonlinear matrix equations. *Applied Mathematics and Computation*, 362(2019), 1-18. <https://doi.org/10.1016/j.amc.2019.06.048>
1636. J. Meng. On the positive definite solutions of the nonlinear matrix equations  $X^p = A \pm M^T(X^{-1} \# B)^{-1}M$ . *Third Conference on Numerical Analysis and Scientific Computation with Applications NASCA2018, 2-6 July 2018, Kalamata, Greece*. [http://nasca18.math.uoa.gr/fileadmin/nasca18.math.uoa.gr/uploads/talks/talk\\_Jie\\_Meng.pdf](http://nasca18.math.uoa.gr/fileadmin/nasca18.math.uoa.gr/uploads/talks/talk_Jie_Meng.pdf)
1637. V. Hasanov. Perturbation bounds for the matrix equation  $X + A^* \hat{X}^{-1} A = Q$ . *Applied and Computational Mathematics*, 19(2020), 20-33. ISSN: 1683-3511

**I. Popchev, M. Konstantinov, P. Petkov, V. Angelova.** Condition numbers for the matrix equation  $X + A^H X^{-1} A + B^H X^{-1} B = I$ . *Comptes rendus de l'Académie bulgare des Sciences*, 64(2011), 1679-1688.

1638. V. Hasanov, S. Hakkaev. Newton's method for a nonlinear matrix equation. *Comptes rendus de l'Académie bulgare des Sciences*, 68(2015), 973-982.

## 2016 r.

1639. V.I.Hasanov, S.A.Hakkaev. Convergence analysis of some iterative methods for a nonlinear matrix equation. *Computers and Mathematics with Applications*, 72(2016), 1164-1176. <https://doi.org/10.1016/j.camwa.2016.06.035>
1640. V.I. Hasanov, A.A. Ali. On convergence of three iterative methods for solving of the matrix equation  $X + A^* X^{-1} A + B^* X^{-1} B = Q$ . *Computational and Applied Mathematics*, 36(2017), 79-87. <https://doi.org/10.1007/s40314-015-0215-6>
1641. B.-H. Huang, C.-F. Ma. Some iterative methods for the largest positive definite solution to a class of nonlinear matrix equation. *Numerical Algorithms*, 79(2018), 153-178. <https://doi.org/10.1007/s11075-017-0432-8>
1642. S. Pakhira, S. Bose, S.M. Hossein. Solutions of a class of nonlinear matrix equations. *Cornell University Library, ArXiv e-prints in Functional Analysis [math.FA] 1907.08408v1, 2019, 1-23*. Available at <http://arxiv.org/abs/1907.08408v1>
1643. H. Ali, S.M. Hossein. On the positive definite solution of a class of pair of nonlinear matrix equations. *Computational and Applied Mathematics*, 39(2020). <https://doi.org/10.1007/s40314-020-1127-7>
1644. P. C.-Y. Weng. Solving two generalized nonlinear matrix equations. *Journal of Applied Mathematics and Computing*, 2020. DOI: 10.1007/s12190-020-01448-y

**I. Popchev, P. Petkov, M. Konstantinov, and V. Angelova**, Perturbation bounds for the nonlinear matrix equation  $X + A^H X^{-1} A + B^H X^{-1} B = I$ , *I. Lirkov, S. Margenov, J. Wasniewski (Eds.), Large-Scale Scientific Computing, Lecture Notes in Computer Science, 7116, Springer, Berlin 2012, 155–162.*

1645. N. Huang, C. Ma. The inversion-free iterative methods for solving the nonlinear matrix equation  $X + A^H X^{-1} A + B^H X^{-1} B = I$ . *Abstract and Applied Analysis*, 2013. ISSN: 1085-3375, <http://dx.doi.org/10.1155/2013/843785>

1646. V. Hasanov, S. Hakkaev. Newton's method for a nonlinear matrix equation. *Comptes rendus de l'Académie bulgare des Sciences*, 68(2015), 973-982.

#### 2016 г.

1647. V.I.Hasanov, S.A.Hakkaev. Convergence analysis of some iterative methods for a nonlinear matrix equation. *Computers and Mathematics with Applications*, 72(2016), 1164-1176. <https://doi.org/10.1016/j.camwa.2016.06.035>

1648. V.I. Hasanov, A.A. Ali. On convergence of three iterative methods for solving of the matrix equation  $X + A^* X^{-1} A + B^* X^{-1} B = Q$ . *Computational and Applied Mathematics*, 36(2017), 79-87. <https://doi.org/10.1007/s40314-015-0215-6>

1649. V.I. Hasanov, D.I. Borisova. Perturbation estimates for the maximal solution of a nonlinear matrix equation. *Ann. Acad. Rom. Sci., Ser. Math. Appl.*, 9(2017), 28-43. ISSN 2066-6594

1650. B.-H. Huang, C.-F. Ma. Some iterative methods for the largest positive definite solution to a class of nonlinear matrix equation. *Numerical Algorithms*, 79(2018), 153-178. <https://doi.org/10.1007/s11075-017-0432-8>

1651. P. C.-Y. Weng. Solving two generalized nonlinear matrix equations. *Journal of Applied Mathematics and Computing*, 2020. DOI: 10.1007/s12190-020-01448-y

**I.P. Popchev, M.M. Konstantinov, P.H. Petkov, V.A. Angelova**. Norm-wise, mixed and component-wise condition numbers of matrix equation  $A_0 + \sum_{i=1}^k \sigma_i A_i^* X^{p_i} A_i = 0, \sigma_i = \pm 1$ . *Applied and Computational Mathematics*, 13(2014), 18–30.

1652. N.A. Safarova, N.I. Velieva. Iterative algorithms to the solution of the discrete optimal regulator problem. *Bull. Math. Soc. Sci. Math. Roumanie, Tome 57(105), No. 4, 2014, 427–436.*

1653. A.A. Ali, V.I. Hasanov. On some sufficient conditions for the existence of a positive definite solution of the matrix equation  $X + A^* X^{-1} A + B^* X^{-1} B = I$ . *AIP Conference Proceedings*, 1690(2015). <https://doi.org/10.1063/1.4936739>

#### 2016 г.

1654. A.A. Али. Един итерационен метод за матричното уравнение  $X + A^* X^{-1} A - B^* X^{-1} B = I$ . *Трудове на научната конференция "MATTEX 2016 организирана от Факултета по математика и информатика на Шуменския университет "Епископ Константин Преславски том1, 74-80.* Шумен, 2016.

1655. D.I. Borisova, V.I. Hasanov. On some perturbation bounds for a matrix equation from interpolation problems. *Ann. Acad. Rom. Sci., Ser. Math. Appl.*, 10(2018), 297-313. ISSN 2066-6594

1656. V.I. Hasanov. On the matrix equation  $X + A^* X^{-1} A - B^* X^{-1} B = I$ . *Linear and Multilinear Algebra*, 2017. DOI: 10.1080/03081087.2017.1373730

1657. V.I. Hassanov. On perturbation estimates for the extreme solution of a matrix equation. *Ann. Acad. Rom. Sci., Ser. Math. Appl.*, 9(2017), 74-88. ISSN 2066-6594
1658. V.I. Hasanov. On a perturbation estimate for the extreme solution of the matrix equation  $X - A^* \hat{X}^{-1} A = Q^*$ . *Innovativity in Modeling and Analytics Journal of Research*, vol. 2, 2017, pp.1-11. <http://imajor.info/JDA>
1659. V.I. Hasanov, D.I. Borisova. Perturbation estimates for the maximal solution of a nonlinear matrix equation. *Ann. Acad. Rom. Sci., Ser. Math. Appl.*, 9(2017), 28-43. ISSN 2066-6594
1660. V.I. Hasanov, S.A. Hakkaev. Convergence analysis of some iterative methods for a nonlinear matrix equation. *Computers and Mathematics with Applications*, 72(2016), 1164-1176. <https://doi.org/10.1016/j.camwa.2016.06.035>
1661. B.-H. Huang, C.-F. Ma. Some iterative methods for the largest positive definite solution to a class of nonlinear matrix equation. *Numerical Algorithms*, 79(2018), 153-178. <https://doi.org/10.1007/s11075-017-0432-8>
1662. J. Meng. On the positive definite solutions of the nonlinear matrix equations  $X^p = A \pm M^T(X^{-1} \# B)^{-1}M$ . *Third Conference on Numerical Analysis and Scientific Computation with Applications NASCA2018, 2-6 July 2018, Kalamata, Greece*. [http://nasca18.math.uoa.gr/fileadmin/nasca18.math.uoa.gr/uploads/talks/talk\\_Jie\\_Meng.pdf](http://nasca18.math.uoa.gr/fileadmin/nasca18.math.uoa.gr/uploads/talks/talk_Jie_Meng.pdf)
1663. C.S. Chacha, S.M.R.S. Naqvi. Condition numbers of the nonlinear matrix equation  $X^p - A^* e^X A = I$ . *Journal of Function Spaces*, 2018. <https://doi.org/10.1155/2018/3291867>

**M. Konstantinov, P. Petkov, I. Popchev, V. Angelova.** Perturbation bounds for the matrix equation  $C + \sum_{i=1}^r A_i^* X B_i + D X^s E = 0$ . *Comptes rendus de l'Académie Bulgare des Sciences, Tom 61, 2008, 1111-1120*.

1664. C.S. Chacha, S.M.R.S. Naqvi. Condition numbers of the nonlinear matrix equation  $X^p - A^* e^X A = I$ . *Journal of Function Spaces*, 2018. <https://doi.org/10.1155/2018/3291867>

**A.S. Yonchev, M.M. Konstantinov, P.H. Petkov.** Linear perturbation bounds of the continuous-time LMI based  $H_\infty$  quadratic stability problem. *Applied and Computational Mathematics*, 12(2013), 133-139.

1665. F.A. Aliev, V.B. Larin. The unilateral quadratic matrix equation and problem of eigensensitivities of matrices. *Applied and Computational Mathematics*, 13(2014), 46-54. ISSN: 1683-3511

**2016 r.**

1666. L. Yang, T. Liu, D.J. Hill. Decentralized event-triggered frequency regulation for multi-area power systems. *Automatica*, 126(2021). DOI: 10.1016/j.automatica.2020.109479

**Ts. Slavov, P. Petkov.** Strapdown inertial system based on improved MEMS error models. *Cybernetics and Information Technologies*, vol.11, 2011, 3-23.

**2016 r.**

1667. K. Qian. *Generic Multisensor Integration Strategy and Innovative Error Analysis for Integrated Navigation*, PhD Thesis, York University, Toronto, Canada, 2017.
1668. H. Huang, X. Chen, Z. Zhou, H. Liu, C. Lv. Study on INS/DR integration navigation system using EKF/RK4 algorithm for underwater gliders. *Journal of Marine Science and Technology*, 25 (2017), 84-95. DOI: 10.6119/JMST-016-0913-3



1669. N.N. Salnikov, V.F. Gubarev, S.V. Melnichuk. Application of modified ellipsoidal filter in integrated strapdown inertial navigation system. *Journal of Automation and Information Sciences*, 50 (2018), 35–53. DOI: 10.1615/JAutomatInfScien.v50.i4.40

**P. Petkov, T. Slavov, L. Mollov, and J. Kralev.** Real-time implementation of  $H_\infty$  and  $\mu$ -controllers. *Applied and Computational Mathematics*, vol.14(1), pp. 87–100, 2015.

**2016 г.**

1670. Ф.А. Алиев, Н.А. Исмаилов, Е.В. Мамедова, Н.С. Мухтарова. Вычислительный алгоритм решения задачи оптимального граничного управления с неразделенными краевыми условиями. *Известия РАН. Теория и Системы управления*, 2016, 22–33. ISSN: 1029-3620
1671. S. Malik. *Methods and Technologies for Active Control of Dynamic Loads on High Performance Aircraft*. PhD Thesis, Politecnico di Milano, Milano, Italy, 2018.
1672. V. Yücesoy. *Robustly and strongly stabilizing low order controller design for infinite dimensional systems*. PhD Thesis, Bilkent University, Ankara, Turque, 2018.
1673. S. Malik, S. Ricci, L. Riccobene, D. Monti. Experimental and numerical implementation of robust control for attenuation of buffet loads. *International Forum on Aeroelasticity and Structural Dynamics (IFASD 2019)*, 10-13 June 2019, Savannah, Georgia, USA. IFASD-2019-079, 2019, 1-13.
1674. S. Malik, S. Rici, L. Riccobene. Aeroelastic analysis of a slender wing. *CEAS Aeronautical Journal*, 2020. <https://doi.org/10.1007/s13272-020-00459-6>

**M. Konstantinov, V. Angelova, P. Petkov, D. Gu, V. Tsachouridis.** Perturbation analysis of coupled matrix Riccati equations. *Linear Algebra and its Applications*, 359 (2003), 197-218.

1675. G. Pelova. Perturbation analysis of coupled matrix differential Riccati equations. *Applications of Mathematics in Engineering and Economics. Proceedings of the 32nd International Conference, 2006, Sozopol. M.S. Marinov, M.D. Todorov (Eds.), Softtrade, 2007, 114-124*. ISBN 978-954-334-050-7
1676. D.J. Calderone, L.J. Ratliff, S.S. Sastry. Pricing design for robustness in linear quadratic games. *2013 IEEE 52nd Annual Conference on Decision and Control (CDC)*, 10-13 Dec. 2013, Firenze, Italy. *IEEE*, 2013, 4349-4354. ISBN: 978-1-4673-5714-2, DOI: 10.1109/CDC.2013.6760558

**A.S. Yonchev, M.M. Konstantinov, P.H. Petkov.** Perturbation analysis of the continuous LMI based bounded output energy problem. *Applied and Computational Mathematics*, 8(2009), 163-169.

1677. M.M. Mutallimov, I.M. Askerov, N.A. Ismailov, M.F. Rajabov. An asymptotical method to construction a digital optimal regime for the gaslift process. *Applied and Computational Mathematics*, 9(2010), 77-84.
1678. K.K. Hasanov, T. M. Gasumov. A minimal energy control problem for second-order linear hyperbolic systems with two independent variables. *Optimal Control Applications and Methods*, 33(2011), 51-60.
1679. P. Yan, H. Ozbai, M. Sansal. Robust stabilization of parameter varying time delay systems by switched controllers. *Applied and Computational Mathematics*, 13(2014), 31-45.

1680. M. Bahsi. On the norms of circulant matrices with the generalized Fibonacci and Lucas numbers. *TWMS Journal of Pure and Applied Mathematics*, 6(2015), 84-92.

**M.M. Konstantinov, P.Hr. Petkov, D.W. Gu.** Improved perturbation bounds for general quadratic matrix equations. *Numerical Functional Analysis and Optimization*, 20 (1999), 717-736.

1681. N.D. Christov, M. Najim, E. Grivel, D. Henry. New perturbation bounds for the discrete-time  $\mathcal{H}_\infty$  filtering problem. *Proceedings of the 41st IEEE Conference on Decision and Control, 10-13 Dec. 2002, Las Vegas, NV, 4250-4251*. DOI: 10.1109/CDC.2002.1185037
1682. V. Tsachouridis. *A Unified Framework for the Numerical Solution and Analysis of Generalized Algebraic Quadratic Matrix Equations with Engineering and Scientific Applications. Theory and Software Design and Implementation*. PhD Thesis, University of Leicester, Leicester, UK 2002.
1683. P.M. Van Dooren. *Numerical Linear Algebra for Signals Systems and Control*. Draft notes prepared for the Graduate School in Systems and Control, Univ. of Louvain, Louvain-la-Neuve, Belgium, 2003. Available at <http://www.inma.ucl.ac.be/~vdooren/PVDnotes.pdf>.
1684. N.D. Christov, M. Najim, E. Grivel. On the local sensitivity of the  $H^2$  estimation problem. *Proceedings of the Sixteenth International Symposium on Mathematical Theory of Networks and Systems (MTNS2004), Katholieke Universiteit Leuven, Belgium, July 5-9, 2004. Bart de Moor and Bart Motmans, Edts.*  
<https://www.math.ucsd.edu/helton/MTNSHISTORY/CONTENTS/2004LEUVEN/CDDROM/papers/54.pdf>
1685. N.D. Christov, M. Najim, E. Grivel. Improved sensitivity estimates for the  $\mathcal{H}_2$  estimation problem. *Lecture Notes in Computer Science 3991 LNCS-I, V.N. Alexander et al. (Eds.), Springer, Berlin, 2006, 697-703*.
1686. C.-M. Li, J.-J. Peng. Hermitian positive definite solution of the matrix equation  $X = Q + \sum_{i=1}^m A_i(B + X^{-1})^{-1}A_i^*$ . *International Journal of Computational Mathematics, Volume 2014, Article ID 727093, 8 pages*. <http://dx.doi.org/10.1155/2014/727093>

**M.M. Konstantinov, P.Hr. Petkov.** Sensitivity analysis of unitary matrix decompositions. *Tensor N.S.*, 64 (2003), 72-92.

**2016 г.**

1687. I. Popchev. Why perturbations? *Cybernetics and Information Technologies*, 20 (2020), 170-175. DOI: 10.2478/cait-2020-0054

**T. Slavov, L. Mollov, P. Petkov.** Real-time Linear Quadratic Control using digital signal processor. *TWMS Journal of Pure and Applied Mathematics*, 3(2012), 145-157.

1688. Ф.А. Алиев, Н.А. Исмаилов, Н.С. Мухтарова. Алгоритм нахождения оптимального решения одной задачи с граничным управлением. *Автоматика и телемеханика*, №4, 2015, 97-104.
1689. F.A. Aliev, N.A. Ismailov, N.S. Mukhtarova. Algorithm to determine the optimal solution of a boundary control problem. *Automation and Remote Control*, 76(2015), 627-633.

1690. F.A. Aliev, N.A. Ismailov, A.A. Namazov. Asymptotic method for finding the coefficient of hydraulic resistance in lifting of fluid on tubing. *Journal of Inverse and Ill-posed Problems*, 23(2015), 511-518. ISSN 0928-0219, DOI: 10.1515/jiip-2014-0028

**2016 г.**

1691. B.E. Soyulu, M.S. Guzel, I. Askerzade. A novel deep learning based architecture for facial gesture analysis. *Applied and Computational Mathematics*, 19(2021), 300-316.

**T. Slavov, L. Mollov, J. Kralev, P. Petkov.** Real-time robust control using digital signal processor. *Balkan Journal of Electrical & Computer Engineering*, 1(2013), 56-63.

**2016 г.**

1692. L. Wang, Ch.W. Jin, J. Zhou, Y.P. Xu.  $\mu$  synthesis control of the active bearing system. *Power Transmission*, D. Qin, Y. Shao (Eds.), CRC Press, Taylor & Francis Group, London, UK, 2017, 53-59. ISBN 978-1-138-03267-5

**L. Mollov, P. Petkov.** Embedded robust control of self-balancing two-wheeled robot. *Information Technologies and Control*, №4, Year IX, 2011, 23-31.

1693. S. Ebrahimi, A. Mardany. Dynamic modeling and construction of a two-wheeled mobile manipulator, part I: Self-balancing. *2015 3rd RSI International Conference on Robotics and Mechatronics (ICROM)*, 7-9 Oct 2015, Tehran, Iran. IEEE, 2015. DOI: 10.1109/ICRoM.2015.7367778

1694. S. Ebrahimi, A. Mardany. Dynamic modeling and construction of a new two-wheeled mobile manipulator: self-balancing and climbing. *International Journal of Robotics*, 4(2015), 22-34.

**М.М. Константинов, С.П. Патарински, П.Хр. Петков, Н.Д. Христов.** Синтез линейных систем с квадратичным критерием при структурных ограничениях. *Автоматика и телемеханика*, 38 (1977), стр. 21-30. [English translation in: M.M. Konstantinov, S.P. Patarinski, P.Hr. Petkov, and N.D. Christov. Synthesis of linear systems with a quadratic criterion for structural limitations. *Automation and Remote Control*, 38 (1977), pp.628-636.]

1695. A.I. Žečević, D.D. Šiljak. Control design with arbitrary information structure. *Automatica*, 44 (2008), 2642-2647.

**М.М. Konstantinov, P.Hr. Petkov, S.P. Patarinski, N.D. Christov.** Absolute stability and stabilization of differential delays systems. *Archivum Automat. Telemech.*, vol. 24, pp. 339-350, 1979.

1696. В. Солодовников, А. Филимонов. Упреждающее управление линейными стационарными объектами с запаздываниями. *Автоматика и Телемеханика*, 43 (1982), 57-60. [English translation in: V. Solodovnikov, A. Filimonov. Predictive control of linear stationary plants with delay. *Automation and Remote Control*, 43 (1982), 1409-1412].

**М.М. Konstantinov, P.Hr. Petkov, N. Christov.** Synthesis of linear multivariable systems with prescribed equivalent form. *Systems Science*, vol. 5, 381-394, 1979.

1697. B. Choi, D. Gu, I. Postlethwaite. Low-order  $H_\infty$  suboptimal controllers. *IEE Proceedings – Control Theory and Applications*, 141 (1994), 243-248.

**M. Konstantinov, P. Petkov.** Condition and error estimates in the solution of Lyapunov and Riccati equations. *Math. Balkanica (N.S.)*, 15 (2001), pp. 139-153.

1698. Ц.Н. Славов. *Комбинирани методи за оценяване на параметри и състояния при управление на стохастични системи*. Дисерт. за присъждане на образ. и научна ст. Доктор, ТУ-София, 2006.

**M.M. Konstantinov, P.Hr. Petkov.** The method of splitting operators and Lyapunov majorants in perturbation linear algebra and control. *Numerical Functional Analysis and Optimization*, 23 (2002), 529-572.

1699. H. Li, Y. Wei. New rigorous perturbation bounds for the LU and QR factorizations. *Cornell University Library, ArXiv e-prints in Numerical Analysis [math.NA]* 1405.0179v2, 2014, 1-23. Available at <http://arxiv.org/abs/1405.0179v2>

1700. H. Li, Y. Wei. Improved rigorous perturbation bounds for the LU and QR factorizations. *Numerical Linear Algebra with Applications*, 22 (2015), 1115-1130. DOI: 10.1002/nla.1998

**2016 г.**

1701. H. Li, Y. Wei, Y. Yang. New rigorous perturbation bounds for the Cholesky-like factorization of skew-symmetric matrix. *Linear Algebra and its Applications*, 491 (2016), 83-100. <http://dx.doi.org/10.1016/j.laa.2015.02.032>

1702. I. Popchev. Why perturbations? *Cybernetics and Information Technologies*, 20 (2020), 170-175. DOI: 10.2478/cait-2020-0054

**N.D. Christov, P.Hr. Petkov, M.M. Konstantinov.** Numerical evaluation of system algorithms with SYSLAB. *Journal A*, vol. 28, 1987, pp. 71-75.

1703. A. Marttinen, U. Kortela. A CAD package for process analysis and control design. In “*Computer Aided Design in Control Systems*” (Chen Zhen-Yu, Ed.). *Proceedings of the 4th IFAC Symposium, Beijing 1988*, Pergamon Press, Oxford 1989, 409-413.

1704. A. Marttinen, T. Telkka. A hierarchical process modelling environment. *Prep. 11th IFAC World Congress, Tallinn 1990*, 10, 73-78.

1705. Ф. Алиев, Б. Бордюг, В. Ларин.  *$H_2$ -оптимизация и метод пространства состояний в задаче синтеза оптимальных регуляторов*. ЭЛМ, Баку 1991 (ISBN 5-8066-0444-6).

**M.M. Konstantinov, P.Hr. Petkov, N.D. Christov.** A Schur approach to pole assignment problem. *Control and Cybernetics*, vol. 10, 1981, pp. 19-29.

1706. A. Laub, A. Linnemann, M. Wette. Algorithms and software for pole assignment by state feedback. *Proceedings of the 2nd IEEE Control Society Symposium CACSD, Santa Barbara, California 1985*.

1707. A. Laub, A. Linnemann. Hessenberg forms in linear systems theory. In “*Computational and Combinatorial Methods in Systems Theory*” (C. Byrnes, A. Lindquist, eds.), North Holland, Amsterdam 1986, 229-244.

**М. Константинов, С. Патарински, П. Петков, Н. Христов.** Синтез на дискретни системи с гарантирано качество. *Проблеми на техническата кибернетика*, 11 (1981), pp. 34-40.

1708. J.E. Arauho Filho, K.H. Kienitz. Guaranteed cost stabilization of a class of discrete time varying systems. *Proceedings of the 38th IEEE Midwest Symposium on Circuits and Systems, Rio de Janeiro, Brasil, 1995, vol. 1, 107-110.*

1709. K.H. Kienitz. Guaranteed cost stabilization for a class of uncertain discrete-time systems. *International Journal of System Science*, 26 (1995), 555-561.

**П.Хр. Петков, Н.Д. Христов, М.М. Константинов.** Числени методи за матрични изчисления. *Автоматика, Изчисл. техника, Автоматиз. системи*, т. 21, 1987, бр. 8/9, стр. 50-83.

1710. Л. Сотиров. *Избрани глави от съвременната теория на управлението*. Издателство на ТУ-Варна, Варна 1998. ISBN: 954-20-0085-5

1711. Л. Сотиров. *Синтез на дискретни системи за автоматично управление*. Дисертационен труд, представен за получаване на научната степен "доктор на техническите науки", ТУ-Варна, Варна 2000.

**P.Hr. Petkov, M.M. Konstantinov, N.D. Christov.** Conditioning and error estimation in the numerical solution of matrix Riccati equations. *Z. Li et al. (Eds.): NAA 2004, Lect. Notes Comp. Sci. 3401, Springer, Berlin 2005, 448-455.*

1712. Ц.Н. Славов. *Комбинирани методи за оценяване на параметри и състояния при управление на стохастични системи*. Дисерт. за присъждане на образ. и научна ст. Доктор, ТУ-София, 2006.

**P.Hr. Petkov, N.D. Christov, M.M. Konstantinov.** Numerical analysis of the reduction of linear system into orthogonal canonical form. *Systems and Control Letters*, vol. 7, 1986, pp. 361-364.

1713. F. Aliev, V. Larin. Generalized Lyapunov equation and factorization of matrix polynomials. *Preprints 12 IFAC World Congress, Sydney 1993, 5, 157-159.*

**M.M. Konstantinov, P.Hr. Petkov.** Perturbation analysis of matrix equations and decompositions. In: *Numerical Algebra, Matrix Theory, Differential-Algebraic Equations and Control Theory. Festschrift in Honor of Volker Mehrmann. P. Benner, M. Bollhöfer, D. Kressner, C. Mehl, T. Stykel (Eds.), Springer, Heidelberg, 2015, 161-197.*

**2016 г.**

1714. I. Popchev. Why perturbations? *Cybernetics and Information Technologies*, 20 (2020), 170-175. DOI: 10.2478/cait-2020-0054

**M. Konstantinov, P. Petkov, S. Patarinski, N. Christov.** Stabilization of linear differential delayed systems via the Ljapunov's direct method. *Archivum Autom. Telemekh.*, 25 (1980), 315-318.

1715. А.Г. Череменин. *Управление и стабилизация на някои класове механични системи*. Дисертация, представена за присъждане на научната степен “доктор на техническите науки”, Институт по механика при БАН, София 2009.

**M.M. Konstantinov, P.Hr. Petkov, D.W. Gu, I. Postlethwaite.** Nonlocal sensitivity analysis of the eigensystem of a matrix with distinct eigenvalues. *Numerical Functional Analysis and Optimisation*, vol. 18, 1997, pp. 367–382.

1716. X.-L. Feng, Z. Li, T.-Z. Huang. Is every nonsingular matrix diagonally equivalent to a matrix with all distinct eigenvalues? *Linear Algebra and its Applications*, 436(2012), 120-125.

**2016 г.**

1717. R.M. Lin, J.E. Mottershead, T.Y. Ng. A state-of-the-art review on theory and engineering applications of eigenvalue and eigenvector derivatives. *Mechanical Systems and Signal Processing*, 138(2020). DOI: 10.1016/j.ymssp.2019.106536

**М.М. Константинов, С.П. Патарински, П.Хр. Петков, Н.Д. Христов.** Алгоритми и програми за анализ и синтез на линейни управляеми системи. I. Анализ. *Автоматика и Изчислителна техника*, 11 (1977), 4, стр. 31-37.

1718. И. Томов. Синтез на оптимални дискретно-непрекъснати линейни системи за управление. *Автоматика и Изчислителна техника*, 11 (1977), 5, 5-14.

### **III. Цитирания на доклади, представени на научни конгреси и конференции**

**M.M. Konstantinov, P.Hr. Petkov, N.D. Christov.** Orthogonal invariants and canonical forms for linear controllable systems. *Proc. 8th World IFAC Congress, Kyoto, 24-28 Aug. 1981. Pergamon Press, Oxford, vol. 1, pp. 49-54, 1982.*

1719. T. Williams. *Numerically Reliable Software for Control: The SLICE library*. Int. Rep. 85/1, Dept. Comput., Kingston Polytechnic, Kingston upon Thames 1985.
1720. A. Laub, M. Wette. *Algorithms and Software for Pole Assignment and Observers*. Report UCRL-15646, Rev. 1, Electrical & Computer Engineering, University of California, Santa Barbara, 1985.
1721. D.K. Frederick, C.J. Herget, F. McFarland. *Software Summaries for Computer-Aided Control System Design*. Internal Report UCID-20556, Lawrence Livermore National Laboratory, USA, June 1985.
1722. T. Williams. Numerically reliable software for control: the SLICE library. *IEE Proceedings – Control Theory and Applications*, 133 (1986), 73-82.
1723. M. Amin, A. Elabdalla. Parametrization of a class of deadbeat controllers via the theory of decoupling. *IEEE Transactions on Automatic Control*, 33 (1988), 1185-1188.
1724. J. Sun. *Perturbation analysis of system Hessenberg and Hessenberg/triangular forms*. Rep. UMINF-94.02, Dept. Comput. Sci., Inst. Inform. Proc., Umeå (Sweden) 1994.
1725. J. Sun. Perturbation analysis of system Hessenberg and Hessenberg-triangular forms. *Linear Algebra and its Applications*, 241/243 (1996), 811-849.

1726. I. Blanquer, V. Hernández, A. Vidal, E. Arias. Robust and efficient software for control problems: The SLICOT Library. *IFAC Proceedings Volumes*, 33 (2000), 51–56.

**M.M. Konstantinov, P.Hr. Petkov, N.D. Christov.** A Schur approach to pole assignment problem. *Proc. 8th World IFAC Congress, Kyoto, 24–28 Aug. 1981. Pergamon Press, Oxford, vol. 3, pp. 1587–1592, 1982.*

1727. A. Varga. Numerical stability of an algorithm for pole assignment. In “*Computer Aided Design of Multivariable Technological Systems*”, (G. Leininger, ed.). *Proceedings of the 2nd IFAC Symposium, West Lafayette 1982, 117–122.* Pergamon Press, Oxford 1983.
1728. R. Patel. An algorithm for eigenvalue assignment in multi-input systems. *Journal of the Franklin Institute*, 318 (1984), 123–141.
1729. R. Patel, P. Misra. Numerical algorithms for eigenvalue assignment by state feedback. *Proceedings of the IEEE*, 27 (1984), 1755–1764 (2). [Перевод на руски: Р. Пейтел, П. Мисра. Численный алгоритм решения задачи о собственных значениях с помощью обратной связи по состоянию. *ТИИЭР*, 72 (1984), 106–117.]
1730. R. Patel. Algorithms for eigenvalue assignment in multivariable systems. In “*Computer-Aided Control System Eng.*” (M. Jamshidi, C. Herget, eds.), North-Holland, Amsterdam 1985, 315–345. ISBN 0-444-87779-7 [Перевод на руски: Р. Пейтел. Алгоритмы размещения собственных значений в многосвязных системах. В “*Автоматизированное проектирование систем управления*” (М. Джамшиди, Ч. Хергет, ред.), Машиностроение, М. 1989, 280–309. ISBN 5-217-00618-8]
1731. T. Lee, G. Liaw. Pole assignment in real Schur form. *International Journal of System Science*, 17 (1986), 337–343.
1732. A. Laub, A. Linnemann. Hessenberg and Hessenberg/triangular forms in linear system theory. *International Journal of Control*, 44 (1986), 1523–1547. [Reprinted in “*Numerical Linear Algebra Techniques for Systems and Control*”, A Selected Reprint Volume (R. Patel, A. Laub, P. Van Dooren, eds.), IEEE Press, New York, 1994, 87–108. ISBN 0-7803-0443-8]
1733. H. Nour Eldin. Linear multivariable systems controllability and observability: Numerical aspects. In “*Systems & Control Encyclopedia. Theory, Technology, Applications*” (M. Singh, ed.), 4, Pergamon Press, Oxford 1987, 2818–2827.
1734. H. Nour Eldin. Linear multivariable control systems synthesis: Geometric approach. In “*Systems & Control Encyclopedia. Theory, Technology, Applications*” (M. Singh, ed.), 6, Pergamon Press, Oxford 1987, 2807–2827.

**P.Hr. Petkov, N.D. Christov, M.M. Konstantinov.** A computational algorithm for pole assignment of linear multiinput systems. *Proc. 23rd IEEE Conf. on Decision and Control, Las Vegas, Nevada, 12–14 Dec. 1984, pp. 1770–1771.*

1735. T. Williams. *Numerically Reliable Software for Control: The SLICE library.* Int. Rep. 85/1, Dept. Comput., Kingston Polytechnic, Kingston upon Thames 1985.
1736. A. Laub, A. Linnemann, M. Wette. Algorithms and software for pole assignment by state feedback. *Proceedings of the 2nd IEEE Control Society Symposium on CACSD, Santa Barbara, California 1985.*
1737. C. Tsui. An algorithm for computing state feedback in multi-input linear systems. *Proc. 24 Conference on Decision and Control, Ft. Lauderdale, Florida 1985, 2, 1226–1230.*
1738. C. Tsui. An algorithm for computing state feedback in multiinput linear systems. *IEEE Transactions on Automatic Control*, 31 (1986), 243–246. DOI: 10.1109/TAC.1986.1104232

1739. T. Williams. Numerically reliable software for control: the SLICE library. *IEE Proceedings – Control Theory and Applications*, 133 (1986), 73-82.
1740. A. Linnemann. A condensed form for disturbance decoupling with simultaneous pole placement using state feedback. *Preprints of the 10th IFAC World Congress, Munich 1987*, 9, 92-97.
1741. B. Shafai. Design of state feedback for large-scale multivariable systems. *IEEE Transactions on Automatic Control*, 32 (1987), 732-734.
1742. G. Miminis, C. Paige. A direct algorithm for pole assignment of time-invariant multi-input linear systems using state feedback. *Automatica*, 24 (1988), 343-356. [Reprinted in “*Numerical Linear Algebra Techniques for Systems and Control*”, A Selected Reprint Volume (R. Patel, A. Laub, P. Van Dooren, eds.), IEEE Press, New York, 1994, 357-370. ISBN 0-7803-0443-8].
1743. B.P. Lampe, E.N. Rosenwasser. Causal stabilization of forward models of discrete LTI processes under constraints on the set of elementary divisors of the characteristic matrix, *International Journal of Control*, 81 (2008), pp. 1002-1012.
1744. K.J. Åström, B. Wittenmark. *Computer-Controlled Systems. Theory and Design*, 3rd ed.. Prentice Hall, 1997. ISBN 7-302-05008-2
1745. K. Hiranuma, M. Kono. Pole assignment using numerical method. *Transactions of the Society of Instruments and Control Engineering*, 27 (1991), 409-414.
1746. C.M. Özveren. *Asymptotic Order of Reachability in Linear Dynamical Systems*, MSc Thesis, Department of Electrical Engineering and Computer Science, Massachusetts Institute of Technology, 1987.
- P.Hr. Petkov, N.D. Christov, M.M. Konstantinov.** Numerical properties of the generalized Schur approach for solving the discrete matrix Riccati equation. *Proc. 18th Spring Conf. UBM, Albena 1989*, pp. 452-457.
1747. U. Flaschka, V. Mehrmann, D. Zywiets. *An analysis of structure preserving numerical methods for symplectic eigenvalue problems*. Preprint 89-002, Fak. Math., Univ. Bielefeld, Bielefeld 1989.
1748. V. Mehrmann. *The Autonomous Linear Quadratic Control Problem. Theory and Numerical Solution*. Lecture Notes in Control and Information Sciences, Springer, Berlin 1991 (ISBN 3-540-54170-5).
1749. T. Gudmundsson, C. Kenney, A. Laub. Scaling of the discrete-time algebraic Riccati equation to enhance stability of the Schur solution method. *IEEE Transactions on Automatic Control*, 37(1992), 513-518.
1750. P. Benner, A. Laub, V. Mehrmann. *A Collection of Benchmark Examples for the Numerical Solution of Algebraic Riccati Equations. II. Discrete-Time Case*. TR SPC 95-23, Fak. Math., TU-Chemnitz, 1995.
1751. A. Hansson, P. Hagander. *How to solve ill-posed semidefinite discrete-time algebraic Riccati equations*. Int. Rep. ISRN LUTFD2/TFRT-7554-SE, Dept. Automat. Control, Lund Inst. Techn., 1996.
1752. P. Benner. *Contributions to the Numerical Solution of Algebraic Riccati Equations and Related Eigenvalue Problems*. Logos Verlag, Berlin 1997 (ISBN 3-931216-70-5).
1753. P. Benner, A.J. Laub, V. Mehrmann. Benchmarks for the numerical solution of algebraic Riccati equations. *IEEE Control Systems Magazine*, 17 (1997), 18-28.
1754. J. Abels, P. Benner. *DAREX - A collection of benchmark examples for discrete-time algebraic Riccati equations (Version 2.0)*. NICONET Rep. 99-16, Department of Electrical Eng., University of Leuven, 1999.



1755. B.N. Datta. *Numerical Methods for Linear Control Systems*. Elsevier, Amsterdam 2004. ISBN: 0-12-203590-9

**P.Hr. Petkov, N.D. Christov, M.M. Konstantinov.** SYSLAB: An interactive system for analysis and design of linear multivariable systems. *Proc. 3rd IFAC/IFIP Int. Symp. Comp. Aided Design Control Eng. Syst., Lyngby (Denmark) 1985*, pp. 140-144.

1756. Ad van den Boom. CADCS developments in Europe. In "Computer Aided Design in Control Systems" (Chen Zhen-Yu, Ed.). *Proceedings of the 4th IFAC Symposium, Beijing 1988*, Pergamon Press, Oxford 1989, 65-73.
1757. G. Grübel, A. Varga, A. van den Boom, A. Geurts. Towards a coordinated development of numerical CACSD software: the RASP/SLICOT compatibility concept. *Proceedings of the IEEE/IFAC Symposium on CACSD, Tucson, Arizona, 1994*.
1758. P. Benner, V. Mehrmann, V. Sima, S. Van Huffel, A. Varga. *SLICOT - A subroutine library in systems and control theory*. NICONET Report 97-3, Available at <http://www.win.tue.nl/niconet/NIC2/reports.html>.
1759. P. Benner, V. Mehrmann, V. Sima, S. Van Huffel, A. Varga. SLICOT - A subroutine library in systems and control theory. In: B.N. Datta (Ed.), *Applied and Computational Control, Signals and Circuits, vol.1*, Birkhäuser, 1999, 499-539. ISBN 0-8176-3954-3
1760. S. Van Huffel, V. Sima, A. Varga, S. Hammarling, F. Delebecque. High-performance numerical software for control. *IEEE Control Systems Magazine*, 24 (2004), 60-76.
1761. Н. Крушев. *Алгоритми и програмно осигуряване за проектиране на динамични системи чрез оптимизация*. Канд. дис., ИПМИ, ТУ-София, С. 1993.

**M.M. Konstantinov, P.Hr. Petkov, N.D. Christov.** Conditioning of the output pole assignment problem. *Proc. 3rd European Control Conf., Rome, Italy, 1995*, vol. 3, pp. 2072-2077.

1762. V. Mehrmann, H. Xu. An analysis of the pole placement problem. I. The single-input case. *Electronic Transactions on Numerical Analysis (ETNA)*, 4 (1996), 89-105.  
Available at <http://etna.mcs.kent.edu/vol.4.1996/pp89-105.dir/pp89-105.ps>
1763. V. Mehrmann, H. Xu. An analysis of the pole placement problem. II. The multi-input case. *Electronic Transactions on Numerical Analysis (ETNA)*, 5 (1997), 77-97.  
Available at <http://etna.mcs.kent.edu/vol.5.1997/pp77-97.dir/pp77-97.ps>
1764. V. Mehrmann, H. Xu. *Numerical Methods in Control, from Pole Assignment via Linear Quadratic to  $H_\infty$  Control*. Prep. SFB393/99-12, TU-Chemnitz, Chemnitz 1999. Available at <http://www.tu-chemnitz.de/sfb393/Files/PS/sfb99-12.ps.gz>.
1765. V. Mehrmann, H. Xu. Numerical methods in control. *Journal of Computational and Applied Mathematics*, 123 (2000), 371-394.
1766. E.K.-W. Chu, C.-Y. Weng, C.-S. Wang, C.-C. Yen. Conditioning of state feedback pole assignment problems. *Taiwanese Journal of Mathematics*, 16 (2012), 283-304.

**M.M. Konstantinov, N.D. Christov, P.Hr. Petkov.** Perturbation analysis of linear control problems. *Prepr. 10th World IFAC Congress, Munich 1987*, vol. 9, pp. 16-21.

1767. В. Ангелова. *Пертурбационен анализ на линейни многомерни системи за управление*. Канд. дис., ИИТ-БАН, С. 1993.
1768. J. Sun. *Perturbation Analysis of the Pole Assignment Problem*. Reprint UMINF-94.12, Dept. Comput. Sci., Inst. Inform. Proc., Umeå (Sweden) 1994.
1769. J. Sun. Perturbation analysis of the pole assignment problem. *SIAM Journal on Matrix Analysis and Applications*, 17 (1996), 313-331.
1770. E.K.-W. Chu, C.-Y. Weng, C.-S. Wang, C.-C. Yen. Conditioning of state feedback pole assignment problems. *Taiwanese Journal of Mathematics*, 16 (2012), 283-304.
- M.M. Konstantinov, P.Hr. Petkov, N.D. Christov.** Perturbation analysis of the continuous and discrete matrix Riccati equations. *Proceedings of the American Control Conference, Seattle 1986, vol. 1, pp. 636-639.*
1771. V. Mehrmann. *The Autonomous Linear Quadratic Control Problem. Theory and Numerical Solution*. Lecture Notes in Control and Information Sciences, Springer, Berlin 1991 (ISBN 3-540-54170-5).
1772. A. Laub. Invariant subspace methods for the numerical solution of Riccati equations. In "Riccati Equation" (S. Bittanti, A. Laub, J. Willems, eds.), Springer, Berlin 1991, 163-196. ISBN 03-540-53099-1
1773. В. Ангелова. *Пертурбационен анализ на линейни многомерни системи за управление*. Канд. дис., ИИТ-БАН, С. 1993.
1774. P. Koltai, O. Junge. Optimal value functions for weakly coupled systems: a posteriori estimates. *ZAMM - Journal of Applied Mathematics and Mechanics / Zeitschrift für Angewandte Mathematik und Mechanik*, 94 (2014), 345-355. DOI: 10.1002/zamm.201100138
- P.Hr. Petkov, N.D. Christov, M.M. Konstantinov.** Computational methods for linear control systems - some open questions. *Proc. 26th IEEE Conference on Decision and Control, Los Angeles, CA, 1987, vol. 1, pp. 818-823.*
1775. В. Ангелова. *Пертурбационен анализ на линейни многомерни системи за управление*. Канд. дис., ИИТ-БАН, С. 1993.
1776. M. Barker, I. Rhodes. Perturbation analysis for the determination of observability indices. *Proceedings of the 1994 American Control Conference, Baltimore 1994, 2745-2746.*
1777. В. Ангелова. Чувствителност на линейна дискретна система - оценяване на точността на решението. *Автоматика и Информатика*, 1995, 2, 13-16.
1778. D.F. Ávila Álvarez. *Robustez de la Estimación de Estado en Sep's por el Método de Cuadrados Minimos*, Tesis que para obtener el grado de Maestro en Ciencias en Ingeniería Eléctrica, Escuela Superior de Ingeniería Mecánica y Eléctrica, Instituto Politécnico Nacional, México, Agosto 2012.
- M.M. Konstantinov, P.Hr. Petkov, N.D. Christov.** Control of linear systems via the serial canonical form. "Software for Computer Control", *Proc. 2nd IFAC/IFIP Symp. Soft. Comp. Control, Prague 1979, Pergamon Press, Oxford 1980, pp. 331-334.*
1779. A. Emami-Naeini, G. Franklin. Deadbeat control and tracking of discrete-time systems. *IEEE Transactions on Automatic Control*, 27 (1982), 176-181.

1780. P. Van Dooren. Deadbeat control: A special inverse eigenvalue problem. *BIT*, 24 (1984), 681-699. [Reprinted in "Numerical Linear Algebra Techniques for Systems and Control", A Selected Reprint Volume (R. Patel, A. Laub, P. Van Dooren, eds.), IEEE Press, New York, 1994, 392-406. ISBN 0-7803-0443-8]
1781. P. Van Dooren. Reduced order observers: A new algorithm and proof. *Systems and Control Letters*, 4 (1984), 243-251. [Reprinted in "Numerical Linear Algebra Techniques for Systems and Control", A Selected Reprint Volume (R. Patel, A. Laub, P. Van Dooren, eds.), IEEE Press, New York, 1994, 407-414. ISBN 0-7803-0443-8].

**M.M. Konstantinov, P.Hr. Petkov, N.D. Christov.** Pole assignment by orthogonal triangularization. *Proc. 11th Spring Conf. UBM, Sunny Beach 1982*, pp. 265-273.

1782. A. Laub, A. Linnemann, M. Wette. Algorithms and software for pole assignment by state feedback. *Proceedings of the 2nd IEEE Control Society Symposium CACSD, Santa Barbara, California 1985*.
1783. A. Laub, A. Linnemann. Hessenberg and Hessenberg/triangular forms in linear system theory. *International Journal of Control*, 44 (1986), 1523-1547. [Reprinted in "Numerical Linear Algebra Techniques for Systems and Control", A Selected Reprint Volume (R. Patel, A. Laub, P. Van Dooren, eds.), IEEE Press, New York, 1994, 87-108. ISBN 0-7803-0443-8]
1784. A. Laub, A. Linnemann. Hessenberg forms in linear systems theory. In "Computational and Combinatorial Methods in Systems Theory" (C. Byrnes, A. Lindquist, eds.), North Holland, Amsterdam 1986, 229-244.

**P.Hr. Petkov, N.D. Christov, M.M. Konstantinov.** A program package for computer-aided design of digital control systems. *Prepr. IFAC Symp. Soft. Comp. Control SOCOCO'82, Madrid 1982*, pp.217-220.

1785. *An Inventory of Basic Software for Computer Aided Control System Design (CACSD)*. WGS Rept. 85-1, Dept. Math. Computer Sci., Eindhoven Univ. Technology, Eindhoven 1986, p. 12.
1786. D. Strydom, I. MacLeod. Computer aided control system design software in process control - a survey. In "Software for Computer Control 1988 (SOCOCO 88)" (I. MacLeod, A. Heher, eds.). *Proc. 5 IFAC/IFIP Symp., Johannesburg 1988*, Pergamon Press, Oxford 1989, 217-220.
1787. D.K. Frederick, C.J. Herget, F. McFarland. *Software Summaries for Computer-Aided Control System Design*. Internal Report UCID-20556, Lawrence Livermore National Laboratory, USA, June 1985.

**M.M. Konstantinov, S.P. Patarinski, P.Hr. Petkov, N.D. Christov.** Synthesis of linear control systems with prescribed dynamics. *Proceedings of the First International Conference on Mathematical Modeling, St. Louis, Missouri, 29 Aug.-1 Sept. 1977*, vol. 3, pp. 1639-1648.

1788. P. Van Dooren. The generalized eigenstructure problem in linear system theory. *IEEE Transactions on Automatic Control*, 26 (1981), 111-129. [Reprinted in "Numerical Linear Algebra Techniques for Systems and Control", A Selected Reprint Volume (R. Patel, A. Laub, P. Van Dooren, eds.), IEEE Press, New York, 1994, 109-127. ISBN 0-7803-0443-8]
1789. М. Осман. Някои оптимизационни задачи за линейни дискретни системи. Канд. дис., БАН, С. 1981.

- P.Hr. Petkov, N.D. Christov, M.M. Konstantinov.** Numerically stable algorithm and program for pole assignment of linear single-input systems. *Proc. Sixth Intern. Conf. on Anal. Optimis. Syst., Nice, 19-22 June 1984. Lecture Notes in Control and Information Sciences, vol. 63, Springer, Berlin 1984, pp. 59-73.*
1790. A. Barraud, P. Laporte, S. Gentil. SIRENA+: A versatile interactive system for simulation, identification and control design. In “*Computer Aided Design in Control and Engineering Systems*”, *Preprints of the 3rd IFAC/IFIP International Symposium CADCE’85, Copenhagen 1985, 157-162.*
1791. W. Wonham. *Linear Multivariable Control: A Geometric Approach*. 3 ed., Ser. Appl. Math., 10, Springer, New York 1985. ISBN: 0-387-96071-6
- M. Konstantinov, N. Christov, P. Petkov.** On the stability of linear stochastic systems with additive noise. *Prep. 2nd IFAC Symp. Stoch. Control, Vilnius 1986, Part I, 170-173.*
1792. W.-J. Chang, C.C. Shing. Robust covariance control for discrete systems by Takagi-Sugeno fuzzy controllers. *ISA Transactions, 43 (2004), 377-387.*
1793. W.-J. Chang, C.C. Shing. Discrete fuzzy covariance control for specified decay rate. *International Journal of Systems Science, 36 (2005), 201-208.*
- P. Petkov, N. Christov, M. Konstantinov.** A posteriori error analysis of the generalized Schur approach for solving the discrete matrix Riccati equation. *Prepr. 5th IFAC/IMACS Symp. Comp. Aided Design Control Syst., Swansea, UK, 1991, 178-181.*
1794. E.K.-W. Chu, H.-Y. Fan, W.-W. Lin, C.-S. Wang. Structure-preserving algorithms for periodic discrete-time algebraic Riccati equations. *International Journal of Control, 77 (2004), 767-788.*
1795. J. Abels, P. Benner. *DAREX - A collection of benchmark examples for discrete-time algebraic Riccati equations (Version 2.0)*. NICONET Rep. 99-16, Department of Electrical Eng., University of Leuven, 1999.
- П.Хр. Петков, М.М. Константинов, Н.Д. Христов.** Числено устойчив метод за оптимален синтез със зададена собствена структура. *Сб. научни тр. Нац. конф. “Автоматика 94”, София 1994, 71-74.*
1796. Л. Сотиров. *Избрани глави от съвременната теория на управлението*. Издателство на ТУ–Варна, Варна 1998. ISBN: 954-20-0085-5
1797. Л. Сотиров. *Синтез на дискретни системи за автоматично управление*. Дисертационен труд, представен за получаване на научната степен “доктор на техническите науки”, ТУ–Варна, Варна 2000.
- M.M. Konstantinov, P.Hr. Petkov, N.D. Christov.** Conditioning of the continuous-time  $H_\infty$  optimisation problem. *Proc. 3rd European Control Conf., Rome, Italy, 1995, vol. 1, pp. 613-617.*
1798. I. Kawelke. *Perturbation and Error Analysis Considerations in Robust Control*. Ph.D. Thesis, Dept. Eng., Leicester University, Leicester 1997.
1799. P.J. Suchomski. A reliable synthesis of discrete-time  $\mathcal{H}_\infty$  control. Part I: Basic theorems and J-lossless conjugators. *Control and Cybernetics, 36(2007), 97-141.*

1800. А.Г. Марковски. *Числени проблеми при анализа и синтеза на робастни системи за управление с MATLAB и SLICOT*. Технически университет - София, 2019. ISBN: 978-619-167-377-3

**M. Konstantinov, V. Angelova, P. Petkov, I. Popchev.** Sensitivity of a complex fractional-affine matrix equation. *Proc. Jubilee Scientific Conference, Univ. Arkh. Stroit. Geod., Sofia, 8 (2002), 495-504.*

1801. V.B. Larin. Solution of matrix equations in problems of mechanics and control. *International Applied Mechanics*, 45 (2009), 847-872. <https://doi.org/10.1007/s10778-009-0232-5>
1802. V.B. Larin. Algorithms of solving the equation  $X - A^T X^{-1} A = Q$ . *Journal of Automation and Information Sciences*, 41(2009), 18-25. DOI: 10.1615/JAutomatInfScien.v41.i4.20
1803. F.A. Aliev, V.B. Larin. About use of the Bass relations for solution of matrix equations. *Applied and Computational Mathematics*, 8(2009), 152-162.

**O. Ognyanova, P. Petkov, E. Haralanova, T. Puleva.** Robust control of a wind turbine. *Proceedings of the 7th Mediterranean Conference and Exhibition on Power Generation, Transmission, Distribution and Energy Conservation (MedPower 2010), 7-10 November 2010, Agia Napa, Cyprus, Paper No. MED10/178, pp. 1-5.*

1804. V. Azimi, M.B. Menhaj, A. Fakharian. Adaptive control of a wind turbine based on neural networks. *2013 13th Iranian Conference on Fuzzy Systems (IFSC), 27-29 Aug. 2013, Qazvin, Iran. IEEE, 2013, 1 - 6.* ISBN: 978-1-4799-1227-8, DOI: 10.1109/IFSC.2013.6675650
1805. V. Azimi, M.B. Menhaj. Output electrical power control of horizontal axis wind turbine using indirect model reference adaptive neuro controller. *Majlesi Journal of Electrical Engineering*, 9(2015), 11-26. ISSN: 2345-377X

**M. Konstantinov, S. Patarinski, P. Petkov, N. Christov.** Program package for computer-aided design of linear control systems. *Preprints of IFAC Symposium on Computer Aided Design of Control Systems, Zurich, Switzerland 1979, 319-324.*

1806. M. Mansour, W. Schaufelberger. Report on the IFAC Symposium on Computer Aided Design of Control Systems. *Automatica*, 16 (1980), 341-343.

**M.M. Konstantinov, P.Hr. Petkov, N.D. Christov.** Trajectory properties and cost invariance in discrete linear quadratic problems. *Prepr. 9th World IFAC Congress, Budapest 1984, vol. 8, pp. 19-24.*

1807. И. Попчев. Девети световен конгрес на ИФАК. *Автоматика, изчислителна техника и автоматизирани системи*, 1985, 4, 60-67.

**P.Hr. Petkov, N.D. Christov, M.M. Konstantinov.** Algorithms to estimate the distance between a stable matrix and the nearest unstable one. *Proc. Amer. Contr. Conf., Atlanta 1988, pp. 1508-1509.*

1808. В. Ангелова. *Пертурбационен анализ на линейни многомерни системи за управление*. Канд. дис., ИИТ-БАН, С. 1993.

- M.M. Konstantinov, P.Hr. Petkov, N.D. Christov.** Conditioning of the discrete matrix Riccati equation. *Proc. 21st Spring Conf. UBM, Sofia 1992*, pp. 92-99.
1809. C. He. On the distance to uncontrollability and the distance to instability and their relation to some condition numbers in control. *Numerische Mathematik*, 76 (1997), 463-477.
- P.Hr. Petkov, M.M. Konstantinov, N.D. Christov.** Sensitivity of orthogonal canonical forms for single-input systems. *Proc. 22nd Spring Conf. UBM, Sofia 1993*, pp. 66-73.
1810. C. He. On the distance to uncontrollability and the distance to instability and their relation to some condition numbers in control. *Numerische Mathematik*, 76 (1997), 463-477.
- P.Hr. Petkov, N.D. Christov, M.M. Konstantinov.** Numerical issues in the solution of matrix Riccati equations. *Proc. 2nd Europ. Control Conf., Groningen, The Netherlands, 1993*, vol. 4, pp. 2379-2384.
1811. A. Ran, L. Rodman. Rate of stability of Hermitian solutions of algebraic Riccati equations. *Proceedings of the 5th SIAM Conference on Applied Linear Algebra, Snowbird (UT) 1994*, SIAM, Philadelphia 1994.
- P. Petkov, N. Christov, M. Konstantinov.** Solution of high order matrix Riccati equations with condition and accuracy estimates. *Proc. of the IEEE Int. Symp. on Computer-Aided Control System Design, Dearborn, MI, 1996*. IEEE, NY 1996, 93-98.
1812. J.V.F. Neto, P.H.M. Rêgo. QR-tuning and approximate-ls solutions of the HJB equation for online DLQR design via state and action-dependent heuristic dynamic programming. *International Journal of Innovative Computing, Information and Control*, 10 (2014), 1071-1094. ISSN 1349-4198
- M. Konstantinov, P. Petkov, V. Angelova.** Sensitivity of general discrete algebraic Riccati equations. *Proc. 28th Spring Conf. UBM, Montana 1999*, pp. 128-136.
1813. M.A. Huda, M. Harun-or-Roshid, A. Islam, M. Mumtahirah. Sensitivity and accuracy of eigenvalues relative to their perturbation. *Journal of Mechanics of Continua and Mathematical Sciences*, 6 (2011), 780-796. ISSN: 0973-8975
- P. Petkov, D. Gu, M. Konstantinov, V. Mehrmann.** Numerical solution of matrix Riccati equations: A comparison of six solvers. *Proc. CONTROL 2000 Conf., University of Cambridge, Cambridge 2000*, 1-7.
1814. V.A. Tsachouridis, B. Kouvaritakis. The homogeneous projective transformation of general quadratic matrix equations. *IMA Journal of Mathematical Control and Information*, 22 (2005), 517-540.
- M.M. Konstantinov, P.Hr. Petkov, V. Mehrmann, D. Gu.** Additive matrix operators. *Proc. 30th Spring Conference of the Union of Bulgarian Mathematicians, Borovets, 2001*, pp. 169-175.

1815. J.-G. Sun. Backward perturbation analysis of the periodic discrete-time algebraic Riccati equation. *SIAM Journal on Matrix Analysis and Applications*, 26(2004), 1-19.

**D. Gu, P. Petkov, M. Konstantinov.** Formulae for discrete  $H_\infty$  loop shaping design procedure controllers. *Proceedings of the 15th IFAC World Congress, Barcelona, Spain 2002*.

1816. A. Pomprapa, B. Misgeld, B. Lachmann, M. Walter, S. Leonhardth. Closed-loop ventilation of oxygenation and end-tidal CO<sub>2</sub>. *2013 IEEE International Conference on Systems, Man, and Cybernetics (SMC), 13-16 Oct. 2013, Manchester, UK. IEEE, 2013, 2231-2237*. DOI: 10.1109/SMC.2013.382

**2016 г.**

1817. R.L. Pereira, K.H. Kienitz, F.H.D. Guaracy. Discrete-time static  $H_\infty$  loop shaping control via LMIs. *Journal of the Franklin Institute*, 2017. <http://dx.doi.org/10.1016/j.jfranklin.2017.01.009>

**P. Petkov, M. Konstantinov, N. Christov.** LAPACK-based condition and error estimators for Kalman filter design. *Proc. 42nd IEEE Conference on Decision and Control, Maui, Hawaii 2003, 2381-2382*.

1818. А.Г. Череменин. *Управление и стабилизация на някои класове механични системи*. Дисертация, представена за присъждане на научната степен “доктор на техническите науки”, Институт по механика при БАН, София 2009.

**N. Christov, M. Konstantinov, P. Petkov.** Improved perturbation bounds for the continuous-time  $\mathcal{H}_\infty$  optimisation problem. *Proc. 16th IFAC World Congress, Prague, July 4-8, 2005, paper Mo-A01-TP/6*.

1819. P.J. Suchomski. A reliable synthesis of discrete-time  $\mathcal{H}_\infty$  control. Part I: Basic theorems and  $J$ -lossless conjugates. *Control and Cybernetics*, 36(2007), 97-141.

**P. Petkov, J. Kralev, Ts. Slavov.** Design and implementation of robust control laws. *Proceedings of the 29th European Conference on Modelling and Simulation ECMS 2015, Albena (Varna), Bulgaria, 26-29 May 2015, 6-18*.

**2016 г.**

1820. A.A. Amin, K. Mahmood-ul-Hasan. Robust active fault-tolerant control for internal combustion gas engine for air-fuel ratio control with statistical regression-based observer model. *Measurement and Control*, 52(2019), 1179-1194. DOI: 10.1177/0020294018823031
1821. A.A. Amin, K. Mahmood-ul-Hasan. A review of fault tolerant control systems: Advancements and applications. *Measurement*, 143(2019), 58-68. <https://doi.org/10.1016/j.measurement.2019.04.083>
1822. A.A. Amin, K. Mahmood-ul-Hasan. Hybrid fault tolerant control for air-fuel ratio control of internal combustion gasoline engine using Kalman filters with advanced redundancy. *Measurement and Control*, 52(2019), 473-492. <https://doi.org/10.1177/0020294019842593>

#### IV. Цитирания на научни отчети

**P.Hr. Petkov.** *A computational algorithm for pole assignment of linear single-input systems. Internal Report, School of Electronic Engineering and Computer Science, Kingston Polytechnic, Kingston-upon-Thames, UK, May 1981.*

1823. M. Denham, C. Benson, T. Williams. A robust computational approach to control system analysis and design. In “*Computer Aided Design of Multivariable Technological Systems*”, (G. Leininger, ed.). *Proceedings of the 2nd IFAC Symposium, West Lafayette 1982*, 667-672. Pergamon Press, Oxford 1983.
1824. T. Williams. *Numerically Reliable Software for Control: The SLICE library*. Int. Rep. 85/1, Dept. Comput., Kingston Polytechnic, Kingston upon Thames 1985.
1825. A. Laub, M. Wette. *Algorithms and Software for Pole Assignment and Observers*. Rep. UCRL-15646, Rev. 1, Electr. & Comp. Eng., Univ. of Calif., Santa Barbara, 1985.
1826. T. Williams. Numerically reliable software for control: the SLICE library. *IEEE Proceedings – Control Theory and Applications*, 133 (1986), 73-82.
1827. Y. Saad. Projection and deflation methods for partial pole assignment in linear state feedback. *IEEE Transactions on Automatic Control*, 33 (1988), 290-297. [Reprinted in “*Numerical Linear Algebra Techniques for Systems and Control*”, A Selected Reprint Volume (R. Patel, A. Laub, P. Van Dooren, eds.), IEEE Press, New York, 1994, 384-391 (ISBN 0-7803-0443-8)].
1828. H. Li, A. Woodbury, P. Aitchison. Eigenvalue translation method for stabilizing an unsymmetric Lanczos reduction process. *International Journal for Numerical Methods in Engineering*, 43 (1998), 221-239.

**P.Hr. Petkov, N.D. Christov.** *Solving Lyapunov and Sylvester matrix equations with condition and accuracy estimates*. Rep. CCAE/TR-1993/002, Dept. Comput. Sci., University College Swansea, UK, 1993.

1829. A. Kaabi, A. Kerayechian, F. Toutounian. A new version of successive approximation method for solving Sylvester matrix equations. *Applied Mathematics and Computation*, 186(2007), 638-645.

**P.Hr. Petkov, M.M. Konstantinov, D.W. Gu, I. Postlethwaite.** *Solving continuous-time matrix algebraic Riccati equations with condition and accuracy estimates*. Rep. 95-5, Dept. Eng., Leicester Univ., UK, 1995.

1830. P. Benner. *Contributions to the Numerical Solution of Algebraic Riccati Equations and Related Eigenvalue Problems*. Logos Verlag, Berlin 1997. ISBN 3-931216-70-5
1831. I. Kawelke. *Perturbation and Error Analysis Considerations in Robust Control*. Ph.D. Thesis, Dept. Eng., Leicester University, Leicester 1997.
1832. P. Benner. Symplectic balancing of Hamiltonian matrices. *SIAM Journal on Scientific Computing*, 22 (2001), 1885-1904.

**2016 г.**

1833. А.Г. Марковски. *Числени проблеми при анализа и синтеза на робастни системи за управление с MATLAB и SLICOT*. Технически университет - София, 2019. ISBN: 978-619-167-377-3

**M. Konstantinov, P. Petkov, J. Kawelke, A. Linneman, D. Gu, I. Postlethwaite.** *Perturbation Analysis of System Norms*. Rep. 96-12, Dept. Eng., Leicester Univ., UK, 1996.



2016 г.

1834. А.Г. Марковски. *Числени проблеми при анализа и синтеза на робастни системи за управление с MATLAB и SLICOT*. Технически университет - София, 2019. ISBN: 978-619-167-377-3

**M.M. Konstantinov, P.Hr. Petkov, D.W. Gu, I. Postlethwaite.** *Perturbation Analysis in Finite Dimensional Spaces*. Rep. 96-18, Dept. Eng., Leicester Univ., UK, 1996.

1835. I. Kawelke. *Perturbation and Error Analysis Considerations in Robust Control*. Ph.D. Thesis, Dept. Eng., Leicester University, Leicester 1997.
1836. Г.Б. Пелова. Пертурбационен анализ на диференчни полиномиални уравнения. *Годишник на Университета по архитектура, строителство и геодезия - София, XLII (2002-2003), 63-72.*

2016 г.

1837. А.Г. Марковски. *Числени проблеми при анализа и синтеза на робастни системи за управление с MATLAB и SLICOT*. Технически университет - София, 2019. ISBN: 978-619-167-377-3

**M.M. Konstantinov, P.Hr. Petkov, J. Kawelke, D.W. Gu, I. Postlethwaite.** *Perturbation Analysis of the  $H_\infty$  Control and Filtering Problems*. Rep. 96-26, Dept. Eng., Leicester Univ., UK, 1996.

2016 г.

1838. А.Г. Марковски. *Числени проблеми при анализа и синтеза на робастни системи за управление с MATLAB и SLICOT*. Технически университет - София, 2019. ISBN: 978-619-167-377-3

**P. Petkov, D. Gu, M. Konstantinov.** *Fortran 77 Routines for  $H_\infty$  and  $H_2$  Design of Linear Discrete-Time Control Systems*. Rep. 99-8, Dept. Eng., Leicester Univ., UK, 1999.

1839. I. Blanquer, V. Hernández, A. Vidal, E. Arias. Robust and efficient software for control problems: The SLICOT Library. *IFAC Proceedings Volumes, 33 (2000), 51-56.*
1840. Ф.С.Зайцев, А.Г.Шишкин, А.А.Лукьяница, Е.П.Сучков, С.В.Степанов, Ф.А. Аникеев. Базовые компоненты аппаратно-программного комплекса моделирования и управления тороидальной плазмой методом эpsilon-сетей на гетерогенных мини-суперкомпьютерах. *Труды научно-исследовательского института системных исследований Российской академии наук. 2016. Т. 6. № 1, 36-49.*

**P.Hr. Petkov, M.M. Konstantinov, D.W. Gu, I. Postlethwaite.** *Optimal Pole Assignment Design of Linear Multi-Input Systems*. Rep. 96-11, Dept. Eng., Leicester Univ., UK, 1996.

1841. V. Mehrmann, H. Xu. Numerical methods in control. *Journal of Computational and Applied Mathematics, 123 (2000), 371-394.*

- M.M. Konstantinov, P.Hr. Petkov.** *Conditioning of linear state feedback.* Rep. 93-61, Dept. Eng., Leicester Univ., UK, 1993.
1842. J. Sun. *Perturbation Analysis of the Pole Assignment Problem.* Reprint UMINF-94.12, Dept. Comput. Sci., Inst. Inform. Proc., Umeå (Sweden) 1994.
1843. C. He, A. Laub, V. Mehrmann. *Placing Plenty of Poles is Pretty Preposterous.* Preprint 95/17, DFG-Forschergruppe Sci. Parallel Comput., Fak. Math., TU-Chemnitz, 1995.
1844. J. Sun. Perturbation analysis of the pole assignment problem. *SIAM Journal on Matrix Analysis and Applications*, 17 (1996), 313-331.
1845. V. Mehrmann, H. Xu. An analysis of the pole placement problem. I. The single-input case. *Electronic Transactions on Numerical Analysis (ETNA)*, 4 (1996), 89-105.  
Available at <http://etna.mcs.kent.edu/vol.4.1996/pp89-105.dir/pp89-105.ps>
1846. V. Mehrmann, H. Xu. An analysis of the pole placement problem. II. The multi-input case. *Electronic Transactions on Numerical Analysis (ETNA)*, 5 (1997), 77-97.  
Available at <http://etna.mcs.kent.edu/vol.5.1997/pp77-97.dir/pp77-97.ps>
1847. V. Mehrmann, H. Xu. Choosing poles so that the single-input pole placement problem is well conditioned. *SIAM Journal on Matrix Analysis and Applications*, 19 (1998), 664-681.
1848. V. Mehrmann, H. Xu. *Numerical Methods in Control, from Pole Assignment via Linear Quadratic to  $H_\infty$  Control.* Preprint SFB393/99-12, TU-Chemnitz, Chemnitz 1999. Available at <http://www.tu-chemnitz.de/sfb393/Files/PS/sfb99-12.ps.gz>
1849. V. Mehrmann, H. Xu. Numerical methods in control. *Journal of Computational and Applied Mathematics*, 123 (2000), 371-394.
1850. B.N. Datta. *Numerical Methods for Linear Control Systems.* Elsevier, Amsterdam 2004 (ISBN: 0-12-203590-9).
1851. E.K.-W. Chu, C.-Y. Weng, C.-S. Wang, C.-C. Yen. Conditioning of state feedback pole assignment problems. *Taiwanese Journal of Mathematics*, 16 (2012), 283-304.
- P.Hr. Petkov, M.M. Konstantinov, D.W. Gu, I. Postlethwaite.** *A numerically stable method for optimal eigenstructure assignment of linear multi-input systems.* Rep. 93-64, Dept. Eng., Leicester Univ., UK, 1993.
1852. A. Varga. Parametric methods for pole assignment. *Proceedings of the European Control Conference ECC'97, Brussels, Belgium 1997, Paper ID 928 (CD Rom).* IEEE, 1997. DOI: 10.23919/ECC.1997.7082693
1853. A. Varga. *On minimum norm pole assignment with periodic feedback.* Technical Report TR R226-97, DLR - Oberpfaffenhofen, German Aerospace Research Development, Wessling, Germany, 1997.
1854. A. Varga. *Selection of Basic Software Tools for Standard and Generalized State-Space Systems and Transfer Matrix Factorizations.* SLICOT Working Note 1998-3, <http://www.win.tue.nl/niconet/NIC2/reports.html>.
- M.M. Konstantinov, P.Hr. Petkov, D.W. Gu, I. Postlethwaite.** *Perturbation techniques for linear control problems.* Rep. 95-7, Dept. Eng., Leicester Univ., UK, 1995.
1855. I. Kowelke. *Perturbation and Error Analysis Considerations in Robust Control.* Ph.D. Thesis, Dept. Eng., Leicester University, Leicester 1997.

1856. J. Sun. Perturbation theory for algebraic Riccati equations. *SIAM Journal on Matrix Analysis and Applications*, 19 (1998), 39-65.
1857. V. Tsachouridis. *A Unified Framework for the Numerical Solution and Analysis of Generalized Algebraic Quadratic Matrix Equations with Engineering and Scientific Applications. Theory and Software Design and Implementation*. PhD Thesis, University of Leicester, Leicester, UK 2002.
1858. B.N. Datta. *Numerical Methods for Linear Control Systems*. Elsevier, Amsterdam 2004. ISBN: 0-12-203590-9.

**2016 r.**

1859. P.C.-Y. Weng, F.K.H. Phoa. Perturbation analysis of continuous-time linear time-invariant systems. *Advances in Pure Mathematics*, 10(2020), 155-173.  
<https://doi.org/10.4236/apm.2020.104010>

**D.W. Gu, P.Hr. Petkov, M.M. Konstantinov.** *Direct Formulae for the  $H_\infty$  Sub-Optimal Central Controller*. NICONET Rep. 98-7, Department of Electrical Eng., University of Leuven, 1998.

1860. I. Blanquer, V. Hernández, A. Vidal, E. Arias. Robust and efficient software for control problems: The SLICOT Library. *IFAC Proceedings Volumes*, 33 (2000), 51-56.
1861. V. Mehrmann, H. Xu. Numerical methods in control. *Journal of Computational and Applied Mathematics*, 123 (2000), 371-394.
1862. P. Benner, R. Byers, V. Mehrmann, H. Xu. *Robust numerical methods for robust control*. Tech. Rep. 06/2004, Inst. für Mathematik, TU-Berlin, 2004.
1863. P. Benner, R. Byers, V. Mehrmann, H. Xu. A robust numerical method for the  $\gamma$ -iteration in  $H_\infty$  control. *Linear Algebra and its Applications*, 425(2007), 548-570.
1864. P. Losse, V. Mehrmann, L.K. Poppe, T. Reis. The modified optimal  $\mathcal{H}_\infty$  control problem for descriptor systems. *SIAM Journal on Control and Optimization*, 47(2008), 2795-2811.
1865. P. Benner, P. Losse, V. Mehrmann, L.K. Poppe, T. Reis.  $\gamma$ -iteration for descriptor systems using structured matrix pencils. *Proceedings of the 18th International Symposium on Mathematical Theory of Networks and Systems MTNS2008, July 28-August 1, 2008, Blacksburg, VA*.
1866. P. Losse, T. Reis.  $\mathcal{H}_\infty$ -control for descriptor systems - A structured matrix pencil approach. *Proc. of the Joint 48th IEEE Conference on Decision and Control and 28th Chinese Control Conference, Shanghai, P.R. China, Dec. 16-19, 2009, 103-108*. DOI: 10.1109/CDC.2009.5400245
1867. P. Benner, R. Byers, P. Losse, V. Mehrmann, H. Xu. Robust formulas for optimal  $H_\infty$  controllers. *Automatica*, 47(2011), 2639-2646.
1868. V. Mehrmann, F. Poloni. Using permuted graph bases in  $\mathcal{H}_\infty$  control. *Automatica* 49 (2013), 1790-1797, <http://dx.doi.org/10.1016/j.automatica.2013.02.039>
1869. P. Losse. *The  $\mathcal{H}_\infty$  Optimal Control Problem for Descriptor Systems*. Dissertaion zur Erlangung des akademischen Grades Doctor rerum naturalium, Fakultät für Mathematik, Technische Universität Chemnitz, Chemnitz, Germany, 2011.

**2016 r.**

1870. А.Г. Марковски. *Числени проблеми при анализа и синтеза на робастни системи за управление с MATLAB и SLICOT*. Технически университет - София, 2019. ISBN: 978-619-167-377-3

**P. Petkov, D. Gu, M. Konstantinov.** *FORTTRAN 77 Routines for  $H_\infty$  and  $H_2$  Design of Continuous-Time Linear Control Systems*. NICONET Rep. 98-8, Department of Electrical Eng., University of Leuven, 1998.

1871. V. Mehrmann, H. Xu. *Numerical Methods in Control, from Pole Assignment via Linear Quadratic to  $H_\infty$  Control*. Prep. SFB393/99-12, TU-Chemnitz, Chemnitz 1999. Available at <http://www.tu-chemnitz.de/sfb393/Files/PS/sfb99-12.ps.gz>
1872. V. Mehrmann, H. Xu. Numerical methods in control. *Journal of Computational and Applied Mathematics*, 123 (2000), 371-394.
1873. P. Benner, R. Byers, V. Mehrmann, H. Xu. *Robust numerical methods for robust control*. Tech. Rep. 06/2004, Inst. für Mathematik, TU-Berlin, 2004.
1874. Ц.Н. Славов. *Комбинирани методи за оценяване на параметри и състояния при управление на стохастични системи*. Дисерт. за присъждане на образ. и научна ст. Доктор, ТУ-София, 2006.
1875. P. Benner, R. Byers, V. Mehrmann, H. Xu. A robust numerical method for the  $\gamma$ -iteration in  $H_\infty$  control. *Linear Algebra and its Applications*, 425(2007), 548-570.
1876. P. Losse, V. Mehrmann, L.K. Poppe, T. Reis. The modified optimal  $\mathcal{H}_\infty$  control problem for descriptor systems. *SIAM Journal on Control and Optimization*, 47(2008), 2795-2811.
1877. P. Losse. *The  $\mathcal{H}_\infty$  Optimal Control Problem for Descriptor Systems*. Dissertaion zur Erlangung des akademischen Grades Doctor rerum naturalium, Fakultät für Mathematik, Technische Universität Chemnitz, Chemnitz, Germany, 2011.
1878. V. Mehrmann, F. Poloni. Using permuted graph bases in  $\mathcal{H}_\infty$  control. *Automatica* 49 (2013), 1790-1797, <http://dx.doi.org/10.1016/j.automatica.2013.02.039>

**M.M. Konstantinov, P.Hr. Petkov, D.W. Gu, V. Mehrmann.** *Sensitivity of general Lyapunov equations*. Rep. 98-15, Dept. Eng., Leicester Univ., UK, 1998.

1879. T. Stykel. On criteria for asymptotic stability of differential-algebraic equations. *Zeitschrift für Angewandte Mathematik und Mechanik*, 82 (2002), 147-158.
1880. T. Stykel. Numerical solution and perturbation theory for generalized Lyapunov equations. *Linear Algebra and its Applications*, 349 (2002), 155-185.
1881. T. Stykel. *Analysis and numerical solution of generalized Lyapunov equations*. PhD Thesis, Institut für Mathematik, Technische Universität Berlin, 2002.
1882. V. Angelova. Perturbation analysis for the complex linear matrix equation  $\alpha X + \sigma A^H X A = I$ ,  $\alpha, \sigma = \pm 1$ . *Comptes rendus de l'Académie bulgare des Sciences*, 56(2003), 47-52.
1883. Y. Tang, L. Bao, Y. Lin. Perturbation analysis of the generalized Sylvester equation and the generalized Lyapunov equation. *International Journal of Computer Mathematics*, 88 (2011), 408-420.
1884. M.A. Huda, M. Harun-or-Roshid, A. Islam, M. Mumtahirah. Sensitivity and accuracy of eigenvalues relative to their perturbation. *Journal of Mechanics of Continua and Mathematical Sciences*, 6 (2011), 780-796. ISSN: 0973-8975

1885. H. Diao, X. Shi, Y. Wei. Effective condition numbers and small sample statistical condition estimation for the generalized Sylvester equation. *Science China Mathematics*, 56(2013), 967-982. DOI: 10.1007/s11425-013-4583-3

**P. Petkov, M. Konstantinov, V. Mehrmann.** *DGRSVX and DMSRIC: Fortran 77 Subroutines for Solving Continuous-Time Matrix Algebraic Riccati Equations with Condition and Accuracy Estimates*. Prep. SFB393/98-16, Fak. für Math., Techn. Univ. Chemnitz, 1998.

1886. J. Sun. Condition numbers of algebraic Riccati equations in the Frobenius norm. *Linear Algebra and its Applications*, 350 (2002), 237-261.
1887. V. Tsachouridis. *A Unified Framework for the Numerical Solution and Analysis of Generalized Algebraic Quadratic Matrix Equations with Engineering and Scientific Applications. Theory and Software Design and Implementation*. PhD Thesis, University of Leicester, Leicester, UK 2002.
1888. B.N. Datta. *Numerical Methods for Linear Control Systems*. Elsevier, Amsterdam 2004 (ISBN: 0-12-203590-9).
1889. V.A. Tsachouridis, B. Kouvaritakis. The homogeneous projective transformation of general quadratic matrix equations. *IMA Journal of Mathematical Control and Information*, 22 (2005), 517-540.
1890. V. Tsachouridis. Numerical analysis of general scaled quadratic matrix equations. *Information Technologies and Control*, 4 (2006), 33-43.
1891. V.A. Tsachouridis, N. Karcianas, I. Postlethwaite. A unified framework for the numerical solution of general quadratic matrix equations. *IMA Journal of Mathematical Control and Information*, 24(2007), 259-287.
1892. P.J. Suchomski. A reliable synthesis of discrete-time  $\mathcal{H}_\infty$  control. Part I: Basic theorems and J-lossless conjugators. *Control and Cybernetics*, 36(2007), 97-141.
1893. P. Benner. Theory and numerical solution of differential and algebraic Riccati equations. In: *Numerical Algebra, Matrix Theory, Differential-Algebraic Equations and Control Theory. Festschrift in Honor of Volker Mehrmann*. P. Benner, M. Bollhöfer, D. Kressner, C. Mehl, T. Stykel (Eds.), Springer, Heidelberg, 2015, 67-105. ISBN: 978-3-319-15259-2, DOI: 10.1007/978-3-319-15260-8\_4

**D. Gu, P. Petkov, M. Konstantinov.** *An Introduction to  $H_\infty$  Optimisation Designs*. NICONET Rep. 99-4, Department of Electrical Eng., University of Leuven, 1999.

1894. I. Blanquer, V. Hernández, A. Vidal, E. Arias. Robust and efficient software for control problems: The SLICOT Library. *IFAC Proceedings Volumes*, 33 (2000), 51-56.
1895. А.Г. Марковски. *Числени проблеми при анализа и синтеза на робастни системи за управление с MATLAB и SLICOT*. Технически университет - София, 2019. ISBN: 978-619-167-377-3

**P. Petkov, D. Gu, M. Konstantinov.** *FORTTRAN 77 Routines for  $H_\infty$  and  $H_2$  Design of Discrete-Time Linear Control Systems*. NICONET Rep. 99-5, Department of Electrical Eng., University of Leuven, 1999.

1896. I. Blanquer, V. Hernández, A. Vidal, E. Arias. Robust and efficient software for control problems: The SLICOT Library. *IFAC Proceedings Volumes*, 33 (2000), 51-56.

1897. Ц.Н. Славов. *Комбинирани методи за оценяване на параметри и състояния при управление на стохастични системи*. Дисерт. за присъждане на образ. и научна ст. Доктор, ТУ-София, 2006.
1898. A. Karthikeyan, M.G. Safonov. A Simple unified formula for discrete and continuous-time  $H_\infty$  "All-solutions" controllers. *Proc. of the 7th IFAC Symposium on Robust Control Design, Aalborg, Denmark, June 20-22, 2012*, 448-453.
1899. А.Г. Марковски. *Числени проблеми при анализа и синтеза на робастни системи за управление с MATLAB и SLICOT*. Технически университет - София, 2019. ISBN: 978-619-167-377-3

**P. Petkov, M. Konstantinov, D. Gu, V. Mehrmann.** *Numerical Solution of Matrix Riccati Equations - A Comparison of Six Solvers*. NICONET Rep. 99-10, Department of Electrical Eng., University of Leuven, 1999.

1900. I. Blanquer, V. Hernández, A. Vidal, E. Arias. Robust and efficient software for control problems: The SLICOT Library. *IFAC Proceedings Volumes, 33 (2000)*, 51-56.
1901. A. Cheremensky. *Newtonian Mechanics and Control. Selected Topics*. Mobilnost Plus PLC, St Petersburg, 2007. ISBN: 5-85766-024-6
1902. А.Г. Череменский. *Управление и стабилизация на някои класове механични системи*. Дисертация, представена за присъждане на научната степен "доктор на техническите науки", Институт по механика при БАН, София 2009.
1903. K. Yano, M. Koga. Verified numerical computation in LQ control problem. *Transactions of the Society of Instrument and Control Engineers*, 45(2009), 261-267. <http://doi.org/10.9746/sicetr.45.261>
1904. P. Benner. Theory and numerical solution of differential and algebraic Riccati equations. In: *Numerical Algebra, Matrix Theory, Differential-Algebraic Equations and Control Theory. Festschrift in Honor of Volker Mehrmann*. P. Benner, M. Bollhöfer, D. Kressner, C. Mehl, T. Stykel (Eds.), Springer, Heidelberg, 2015, 67-105. ISBN: 978-3-319-15259-2, DOI: 10.1007/978-3-319-15260-8\_4

**2016 г.**

1905. А.Г. Марковски. *Числени проблеми при анализа и синтеза на робастни системи за управление с MATLAB и SLICOT*. Технически университет - София, 2019. ISBN: 978-619-167-377-3

**D.W. Gu, P.Hr. Petkov, M.M. Konstantinov.**  *$H_\infty$  and  $H_2$  optimization toolbox in SLICOT*. NICONET Rep. 99-12, Department of Electrical Eng., University of Leuven, 1999.

1906. I. Blanquer, V. Hernández, A. Vidal, E. Arias. Robust and efficient software for control problems: The SLICOT Library. *IFAC Proceedings Volumes, 33 (2000)*, 51-56.
1907. F. Leibfritz, W. Lipinski. *Description of the benchmark examples in COMpleib 1.0*. Tech. Report, Dept. Mathematics, Univ. of Trier, Germany, 2003.
1908. L. Garcia, M.J. López, J. Lorenzo. Hardware/Software Environment for Process Identification, Robust Controller Design and Hard Real Time Implementation. *Proceedings of the 5th WSEAS International Conference on Telecommunications and Informatics, Istanbul, Turkey, May 27-29, 2006*, 503-508.

1909. D.W. Rowen, M.A. Hopkins. H-Infinity controller design for structural damping. In *Smart Structures and Materials 2006: Damping and Isolation* (William W. Clark, Mehdi Ahmadian, Arnold Lumsdaine, eds.), *Proc. of SPIE*, 6169 (2006), 616904-1-616904-12.
  1910. P. Benner, R. Byers, V. Mehrmann, H. Xu. A robust numerical method for the  $\gamma$ -iteration in  $H_\infty$  control. *Linear Algebra and its Applications*, 425(2007), 548-570.
  1911. L. Jabben. *Mechatronic Design of a Magnetically Suspended Rotating Platform*. Proefschrift ter verkrijging van de graad van doctor aan de Technische Universiteit Delft. Delft, The Netherlands, 2007. ISBN 978-90-9022523-4
  1912. P.C. Houlis. *A Novel Parametrized Controller Reduction Technique based on Different Closed-Loop Configurations*, PhD Thesis, School of Electrical, Electronic and Computer Engineering, University of Western Australia, 2008.
  1913. P. Losse, V. Mehrmann, L.K. Poppe, T. Reis. The modified optimal  $H_\infty$  control problem for descriptor systems. *SIAM Journal on Control and Optimization*, 47(2008), 2795-2811.
  1914. P. Benner, P. Losse, V. Mehrmann, L.K. Poppe, T. Reis.  $\gamma$ -iteration for descriptor systems using structured matrix pencils. *Proc. 18th Int. Symposium on Mathematical Theory of Networks and Systems MTNS2008, July 28-August 1, 2008, Blakburg, VA*.
  1915. P. Losse, T. Reis.  $H_\infty$ -control for descriptor systems - A structured matrix pencil approach. *Proceedings of the Joint 48th IEEE Conference on Decision and Control and 28th Chinese Control Conference, Shanghai, P.R. China, Dec. 16-19, 2009, 103-108*.
  1916. P. Losse. *The  $H_\infty$  Optimal Control Problem for Descriptor Systems*. Dissertaion zur Erlangung des akademischen Grades Doctor rerum naturalium, Fakultät für Mathematik, Technische Universität Chemnitz, Chemnitz, Germany, 2011.
  1917. V. Mehrmann, F. Poloni. Using permuted graph bases in  $H_\infty$  control. *Automatica*, 49 (2013), 1790-1797. <http://dx.doi.org/10.1016/j.automatica.2013.02.039>
  1918. M.A. Ahmad, S.-i. Azuma, T. Sugie. Performance analysis of model-free PID tuning of MIMO systems based on simultaneous perturbation stochastic approximation. *Expert Systems with Applications*, 41 (2014), 6361-6370.
  1919. A. Mohd. *Model-Free Controller Design based on Simultaneous Perturbation Stochastic Approximation*. PhD Thesis, Kyoto University, Kyoto, Japan, 2015. DOI: 10.14989/doctor.k19125
- 2016 r.**
1920. T. Singh, J. Swevers, G. Pipeleers. Concurrent  $H_\infty/H_\infty$  feedback control design with optimal sensor and actuator selection. *2018 IEEE 15th International Workshop on Advanced Motion Control (AMC), 9-11 March 2018, Tokyo, Japan*. IEEE, 2018, 223-228. DOI: 10.1109/AMC.2019.8371092
- D. Gu, P. Petkov, M. Konstantinov.**  *$H_\infty$  Loop Shaping Design Procedure Routines in SLICOT*. NICONET Rep. 1999-15, Department of Electrical Eng., University of Leuven, 1999.
1921. I. Blanquer, V. Hernández, A. Vidal, E. Arias. Robust and efficient software for control problems: The SLICOT Library. *IFAC Proceedings Volumes*, 33 (2000), 51-56.
- P. Petkov, D. Gu, M. Konstantinov, V. Mehrmann.** *Condition and Error Estimates in the Solution of Lyapunov and Riccati Equations*. NICONET Report 2000-1, 2000.

1922. I. Blanquer, V. Hernández, A. Vidal, E. Arias. Robust and efficient software for control problems: The SLICOT Library. *IFAC Proceedings Volumes, 33 (2000)*, 51–56.
1923. V. Angelova. Perturbation analysis for the complex linear matrix equation  $\alpha X + \sigma A^H X A = I$ ,  $\alpha, \sigma = \pm 1$ . *Comptes rendus de l'Académie bulgare des Sciences*, 56(2003), 47–52.
1924. B.N. Datta. *Numerical Methods for Linear Control Systems*. Elsevier, Amsterdam 2004 (ISBN: 0-12-203590-9).

**D. Gu, P. Petkov, M. Konstantinov.** *On discrete  $H_\infty$  Loop Shaping Design Procedure Routines*. SLICOT Working Note 2000-6, 2000.

1925. M. Kanno, S. Hara, M. Onishi. *Characterization of easily controllable plants based on the finite frequency phase/gain property: A magic number  $\sqrt{4 + 2\sqrt{2}}$  in  $H_\infty$  loop shaping design*. Tech. Rep. METR 2007-18, Dept. Math. Informatics, Grad. School Inform. Sci. Techn., Univ. of Tokyo, 2007.

**2016 г.**

1926. А.Г. Марковски. *Числени проблеми при анализа и синтеза на робастни системи за управление с MATLAB и SLICOT*. Технически университет - София, 2019. ISBN: 978-619-167-377-3

**D. Gu, M. Konstantinov, V. Mehrmann, P. Petkov, H. Xu.** *DRCEXC - A Collection of Benchmark Examples for Robust Control Design of Continuous-Time Dynamical Systems*. SLICOT Working Note 2002-8, 2002.

1927. P. Losse. *The  $H_\infty$  Optimal Control Problem for Descriptor Systems*. Dissertaion zur Erlangung des akademischen Grades Doctor rerum naturalium, Fakultät für Mathematik, Technische Universität Chemnitz, Chemnitz, Germany, 2011.

**M. Konstantinov, V. Mehrmann, P. Petkov, D. Gu.** *A general framework for the perturbation theory of matrix equations*. Technical report 760-02, Technische Universität Berlin, 2003.

1928. V. Angelova. Perturbation analysis for the complex linear matrix equation  $\alpha X + \sigma A^H X A = I$ ,  $\alpha, \sigma = \pm 1$ . *Comptes rendus de l'Académie bulgare des Sciences*, 56(2003), 47–52.

**P.Hr. Petkov et al.** SLICOT Library,  
<http://www.win.tue.nl/wgs/slicot.html>.

1929. P.-O. Malaterre, M.Khammash. Comparison of different polynomial factorization approaches as an alternative to FIR approximation to solve the  $\ell_1$  design problem. *Proceedings of the European Control Conference, Porto, Portugal, 4-7 Sept. 2001*, 3115–3119. (CD Rom).
1930. P.-O. Malaterre. Polynomial factorization of large MIMO systems using SLICOT library and POLYX toolbox. *Proceedings of the European Control Conference, Porto, Portugal, 4-7 Sept. 2001*, 3693–3696. (CD Rom).