

Списък¹ на научните публикации на Николай Николов

Всички статии без No. 51 са реферирани в MR и Zbl.

Web of Science: Q1–17, Q2–26, Q3–18, Q4–15.

1. On the boundary behaviour of the Bergman kernel function near a point of finite type, *Compt. Rend. Acad. Bulg. Sci.* 45 (1992), No 5, 17-18. IF 0.078, Q4. MR 94b:32037, Zbl 854.32011.
2. On the boundary behaviour of invariant metrics near a point of finite type, *Compt. Rend. Acad. Bulg. Sci.* 45 (1992), No 6, 21-24. IF 0.078, Q4. MR 94b:32038, Zbl 854.32012.
3. Boundary behaviour of the Carathéodory and Kobayashi volumes near a point of finite type, *Compt. Rend. Acad. Bulg. Sci.* 45 (1992), No 9, 11-12. IF 0.078, Q4. MR 94e:32042, Zbl 776.32015.
4. Product formula for the Carathéodory-Eisenman and Kobayashi-Eisenman pseudovolumes, *Compt. Rend. Acad. Bulg. Sci.* 48 (1995), No 6, 17-19. MR 96m:32026, Zbl 776.32017.
5. Weighted nontangential limit of the Carathéodory metric in an h-extendible boundary point, *Compt. Rend. Acad. Bulg. Sci.* 50 (1997), No 7-8, 9-12. MR 2000c:32040, Zbl 933.32023.
6. Nontangential weighted limit of the infinitesimal Carathéodory metric in an h-extendible boundary point of a smooth bounded pseudoconvex domain in \mathbb{C}^n , *Acta Math. Hung.* 82 (1999), No 4, 311-324. IF 0.188, Q4. MR 2000b:32060, Zbl 933.32009.
7. Непрерывность и граничное поведение метрики Каратеодори, *Мат. заметки* 67 (2000), No 2, 230-240. IF 0.166, Q4. English translation: Continuity and boundary behavior of the Carathéodory metric, *Math. Notes* 67 (2000), No 2, 183-191. MR 2001g:32028, Zbl 972.32009.
8. Weighted limits of invariant metrics at convexifiable boundary points, *Compt. Rend. Acad. Bulg. Sci.* 53 (2000), No 7, 17-20. MR 2001g:32027, Zbl 1051.32500.
9. Stability and boundary behavior of the Kobayashi metrics, *Acta Math. Hung.* 90 (2001), No 4, 293-301. IF 0.184, Q4. MR 2003e:32021, Zbl 980.54021.
10. Biholomorphy of the model domains at a semiregular boundary point, *Compt. Rend. Acad. Bulg. Sci.* 55 (2002), No 5, 5-8. MR 2003k: 32022, Zbl 1010.32018.
11. Localization of invariant metrics, *Arch. Math.* 79 (2002), No 1, 67-73. IF 0.326, Q3. MR 2003f:32014, Zbl 1008.32005.
12. Concave domains with trivial biholomorphic invariants (with W. Jarnicki), *Ann. Pol. Math.* 79 (2002), No 1, 63-66. MR 2004a:32019, Zbl 1019.32012.
13. Behavior of the Carathéodory metric near strictly convex boundary points (with M. Jarnicki), *Univ. Iag. Acta Math. XL* (2002), 7-12. MR 2004b:32015, Zbl 1033.32009.
14. Entire curves in complements of Cartesian products in \mathbb{C}^n , *Univ. Iag. Acta Math. XL* (2002), 13-14. MR 2004b:32026, Zbl 1031.32001.
15. Estimates for the Bergman kernel and metric of convex domains in \mathbb{C}^n (with P. Pflug), *Ann. Pol. Math.* 81 (2003), No 1, 73-78. MR 2004b:32003, Zbl 1022.32001.
16. Behaviour of invariant metrics near convex boundary points, *Czech. Math. J.* 53 (128), 2003, No 1, 1-7. IF 0.210, Q4. MR 2004a:32020, Zbl 1018.32012.
17. Behavior of the Bergman kernel and metric near convex boundary points (with P. Pflug), *Proc. Amer. Math. Soc.* 131 (2003), No 7, 2097-2102. IF 0.389, Q3. MR 2004a:32007, Zbl 1020.32001.
18. Behavior of the Bergman kernel near smooth convex boundary points (with P. Pflug), *Monatsh. Math.* 139 (2003), No 3, 227-233. IF 0.403, Q3. MR 2004d:32003, Zbl 1035.32002.
19. The completeness of the Bergman distance of planar domains has a local character, *Complex Var. Theory Appl.* 48 (2003), No 8, 705-709. MR 2004f:32012, Zbl 1038.32013.

¹= Списък за конкурса

20. Variations of Smale's mean value conjecture (with Bl. Sendov) *Compt. Rend. Acad. Bulg. Sci.* 56 (2003), No 11, 9-14. MR 2004k:30015, Zbl 1038.30003.
21. Min value problems for complex polynomials (with Bl. Sendov) *Compt. Rend. Acad. Bulg. Sci.* 56 (2003), No 12, 5-10. MR 2004k:32016, Zbl 1036.30004.
22. Min problems for complex polynomials (with Bl. Sendov) *East J. Approx.* 9 (2003), No 4, 427-442. MR 2005b:30006, Zbl 1111.30006.
23. Some remarks on the Green function and the Azukawa pseudometric (with W. Zwonek), *Monatsh. Math.* 142 (2004), No 4, 341-350. IF 0.348, Q3. MR 2005f:32022, Zbl 1070.32010.
24. Entire curves avoiding given sets in \mathbb{C}^n (with P. Pflug), *Ark. Mat.* 42 (2004), No 2, 325-334. MR 2005h:32039, Zbl 1051.32011.
25. On the product property for the Lempert function (with W. Zwonek), *Complex Var. Theory Appl.* 50 (2005), No 12, 939-952. MR 2006g:32017, Zbl 1085.32006.
26. Local vs. global hyperconvexity, tautness or k-completeness for unbounded open sets in \mathbb{C}^n (with P. Pflug), *Ann. Scuola Norm. Sup. Pisa Cl. Sci. (5), Vol. IV* (2005), No 4, 601-618. MR 2006j:32002, Zbl 1170.32302.
27. The multipole Lempert function is monotone under inclusion of pole sets (with P. Pflug), *Mich. Math. J.* 54 (2006), No 1, 111-116. IF 0.440, Q3. MR 2007b:32017, Zbl 1135.32034.
28. The Bergman kernel of the symmetrized polydisc in higher dimensions has zeros (with W. Zwonek), *Arch. Math.* 87 (2006), No 5, 412-416. IF 0.341, Q3. MR 2007f:32005, Zbl 1106.32002.
29. The symmetrized polydisc cannot be exhausted by domains biholomorphic to convex domains, *Ann. Pol. Math.* 88 (2006), No 1, 279-283. MR 2007f:32024, Zbl 1111.32020.
30. On the definition of the Kobayashi-Buseman pseudometric (with P. Pflug), *Int. J. Math.* 17 (2006), No 10, 1145-1149. IF 0.531, Q2. MR 2007i:32011, Zbl 1125.32005.
31. Semiregular polygons (with O. Mushkarov), *Amer. Math. Monthly* 113 (2006), No 4, 339-344. IF 0.237, Q4. MR 2006k:52024, Zbl 1097.51008.
32. Simultaneous approximation and interpolation on Arakelian sets (with P. Pflug), *Can. Math. Bull.* 50 (2007), No 1, 123-125. IF 0.336, Q4. MR 2008f:30085, Zbl 1142.32014.
33. The Lempert function of the symmetrized polydisc in higher dimensions is not a distance (with P. Pflug and W. Zwonek), *Proc. Amer. Math. Soc.* 135 (2007), No 9, 2921-2928. IF 0.520, Q3. MR 2008e:32017, Zbl 1123.32007.
34. Invariant metrics and distances on generalized Neil parabolas (with P. Pflug), *Mich. Math. J.* 55 (2007), No 2, 255-268. IF 0.494, Q3. MR 2008i:32010, Zbl 1140.32008.
35. Hyperbolicity of \mathbb{C} -convex domains (with A. Saracco), *Compt. Rend. Acad. Bulg. Sci.* 60 (2007), No 9, 935-938. IF 0.106, Q4. MR 2008i:32036, Zbl 1141.32008.
36. Estimates of the Carathéodory metric on the symmetrized polydisc (with P. Pflug, P. J. Thomas and W. Zwonek), *J. Math. Anal. Appl.* 341 (2008), No 1, 140-148. IF 1.046, Q1. MR 2009a:32015, Zbl 1135.32014.
37. An example of a bounded \mathbb{C} -convex domain which is not biholomorphic to a convex domain (with P. Pflug and W. Zwonek), *Math. Scand.* 102 (2008), No 1, 149-155. IF 0.412, Q4. MR 2009b:32014, Zbl 1155.32009.
38. On the derivatives of the Lempert functions (with P. Pflug), *Ann. Mat. Pura Appl.* 187 (2008), No 3, 547-553. IF 0.818, Q2. MR 2008m:32022, Zbl 1150.32004.
39. Discontinuity of the Lempert function and the Kobayashi-Royden metric of the spectral ball (with P. J. Thomas and W. Zwonek), *Integr. Equ. Oper. Theory* 61 (2008), No 3, 401-412. IF 0.460, Q3. MR 2009c:32023, Zbl 1154.32003.
40. On the zero set of the Kobayashi-Royden pseudometric of the spectral ball (with P. J. Thomas), *Ann. Pol. Math.* 93 (2008), No 1, 53-68. MR 2008k:32028, Zbl 1144.32003.

41. Remarks on Lempert functions on balanced domains (with P. Pflug), *Monatsh. Math.* 156 (2009), No 2, 159-165. IF 0.764, Q2. MR 2010b:32013, Zbl 1194.32005.
42. On a local characterization of pseudoconvex domains (with P. Pflug, P. J. Thomas and W. Zwonek), *Indiana Univ. Math. J.* 58 (2009), No 6, 2661-2671. IF 0.913, Q1. MR 2011f:32068, Zbl 1202.32010.
43. Lipschitzness of the Lempert and Green functions (with P. Pflug and P. J. Thomas), *Proc. Amer. Math. Soc.* 137 (2009), No 6, 2027-2036. IF 0.640, Q2. MR 2010c:32016, Zbl 1171.32007.
44. Upper bound for the Lempert function of smooth domains (with P. Pflug and P. J. Thomas), *Math. Z.* 266 (2010), No 2, 425-430. IF 0.819, Q2. MR 2011f:32026, Zbl 1207.32010.
45. One-radius results for supermedian functions on \mathbb{R}^d , $d \leq 2$ (with W. Hansen), *Math. Ann.* 348 (2010), No 3, 565-575. IF 1.092, Q1. MR 2011k:31001, Zbl 1204.31001.
46. Separate continuity of the Lempert function of the spectral ball (with P. J. Thomas), *J. Math. Anal. Appl.* 367 (2010), No 2, 710-712. IF 1.174, Q1. MR 2011g:32017, Zbl 1202.32011.
47. Estimates for invariant metrics on \mathbb{C} -convex domains (with P. Pflug and W. Zwonek), *Trans. Amer. Math. Soc.* 363 (2011), No 12, 6245-6256. IF 1.093, Q1. MR 2012m:32009, Zbl 1232.32005.
48. Kobayashi-Royden pseudometric vs. Lempert function (with P. Pflug), *Ann. Mat. Pura Appl.* 190 (2011), No 4, 589-593. IF 0.838, Q1. MR2861060, Zbl 1245.32002.
49. Spectral Nevanlinna-Pick and Carathéodory-Fejér problems for $n \leq 3$ (with P. Pflug and P. J. Thomas), *Indiana Univ. Math. J.* 60 (2011), No 3, 883-893. IF 0.886, Q1. MR2985860, Zbl 1256.32020.
50. On the sum of powered distances to certain sets of points on the circle (with R. Rafailov), *Pacific J. Math.* 253 (2011), No 1, 157-168. IF 0.626, Q2. MR 2012k:52024, Zbl 1246.52014.
51. Convexity, \mathbb{C} -convexity and pseudoconvexity, *Mathematics and Education in Mathematics* 32 (2011), 54-60.
52. Two-dimensional slices of non-pseudoconvex open sets (with P. Pflug), *Math. Z.* 272 (2012), No 1-2, 381-388. IF 0.879, Q1. MR2968230, Zbl 1255.32006.
53. Self-avoiding walks on $\mathbb{Z} \times \{0, 1\}$, *J. Stat. Plan. Infer.* 142 (2012), 376-377. IF 0.713, Q3. MR 2012g:05018, Zbl 1284.05020.
54. "Convex" characterization of linearly convex domains (with P. J. Thomas), *Math. Scand.* 111 (2012), No 2, 179-186. IF 0.521, Q3, MR3023 522, Zbl 1273.32017.
55. Rigid characterizations of pseudoconvex domains (with P. J. Thomas), *Indiana Univ. Math. J.* 61 (2012), No 3, 1313-1323. IF 0.416, Q3. MR3071700, Zbl 1280.32005.
56. Estimates for invariant metrics near non-semipositive boundary points (with N. Q. Dieu and P. J. Thomas), *J. Geom. Anal.* 23 (2013), No 2, 598-610. IF 0.867, Q1. MR3023851, Zbl 1267.32009.
57. On different extremal bases for \mathbb{C} -convex domains (with P. Pflug and P. J. Thomas), *Proc. Amer. Math. Soc.* 141 (2013), No 9, 3223-3230. IF 0.627, Q2. MR3068975, Zbl 1279.32010.
58. Liouville type theorem on \mathbb{Z}^2 (with S. Hristova), *Carpathian J. Math.* 29 (2013), No 2, 217-222. IF 0.642, Q2. MR3137554, Zbl 1299.31005.
59. Real and complex k-planes in convex hypersurfaces, *J. Math. Anal. Appl.* 408 (2013), No 2, 846-847. IF 1.119, Q1. MR3085079, Zbl 1308.32016.
60. On extremums of sums of powered distances to a finite set of points (with R. Rafailov), *Geom. Dedicata* 167 (2013), 69-89. IF 0.469, Q3. MR3128771, Zbl 1287.52007.
61. A converse of the Gauss-Lucas theorem (with Bl. Sendov), *Amer. Math. Monthly* 121 (2014), No 4, 541-544. IF 0.251, Q4. MR3225467, Zbl 1303.30006.

62. Estimates of invariant distances on “convex” domains, *Ann. Mat. Pura Appl.* 193 (2014), No 6, 1595-1605. IF 1.065, Q1. MR3275252, Zbl 1305.32001.
63. Comparison of invariant functions on strongly pseudoconvex domains, *J. Math. Anal. Appl.* 421 (2015), No 1, 180-185. IF 1.014, Q1. MR3250472, Zbl 1297.32013.
64. Two remarks on the Suita conjecture, *Ann. Pol. Math.* 113 (2015), No 1, 61-63. IF 0.350, Q4. MR3310484, Zbl 1314.32004.
65. The Kobayashi balls of (\mathbb{C}) -convex domains (with M. Trybula), *Monatsh. Math.* 177 (2015), No 4, 627-635. IF 0.664, Q2. MR3371366, Zbl 1326.32021.
66. Gromov (non)hyperbolicity of certain domains in \mathbb{C}^2 (with P. J. Thomas and M. Trybula), *Forum Math.* 28 (2016), No 4, 783-794. IF 0.755, Q2. MR3518388, Zbl 1350.32018.
67. Estimates of the Bergman distance on Dini-smooth bounded planar domains (with M. Trybula), *Collect. Math.* 67 (2016), 407-414. IF 0.673, Q2. MR3536053, Zbl 1354.30030.
68. Lifting maps from the symmetrized polydisc in small dimensions (with P. J. Thomas and D.-A. Tran), *Complex Anal. Oper. Theory* 10 (2016), No 5, 921-941. IF 0.605, Q3. MR3506299, Zbl 1350.30055.
69. Boundary behavior of invariant functions on planar domains (with M. Trybula and L. Andreev), *Complex Var. Elliptic Equ.* 61 (2016), No. 8, 1064-1072. IF 0.616, Q3. MR3500516, Zbl 1353.32016.
70. On a lower bound of the Kobayashi metric, *Proc. Amer. Math. Soc.* 144 (2016), No 10, 4393-4394. IF 0.679, Q2. MR3531188, Zbl 1353.32015.
71. On the Dirichlet problem to the Liouville equation. Explicit formulas (with P. Popivanov) *Compt. Rend. Acad. Bulg. Sci.* 69 (2016), No 11, 1389-1400. IF 0.251, Q4. MR3644368, Zbl 1374.35180.
72. Estimates of the Kobayashi and quasi-hyperbolic distances (with L. Andreev), *Ann. Mat. Pura Appl.* 196 (2017), No 1, 43-50. IF 1.066, Q1. MR3600857, Zbl 1366.32006.
73. Boundary behavior of the squeezing functions of \mathbb{C} -convex domains and plane domains (with L. Andreev), *Int. J. Math.* 28 (2017), No 5, article ID: 1750031, 5 p. IF 0.571, Q3. MR3655077, Zbl 1373.32010.
74. Boundary behavior of the quasi-hyperbolic metric (with P. J. Thomas), *Ann. Acad. Sci. Fenn. Math.* 43 (2018), No 1, 381-389. IF 0.802, Q2. MR3753180, Zbl 1391.51019.
75. Comparison of the real and the complex Green functions, and sharp estimates of the Kobayashi distance (with P. J. Thomas), *Ann. Scuola Norm. Sup. Pisa Cl. Sci. (5), Vol. XVIII* (2018), No 3, 1125-1143. IF 0.782, Q2. MR3807597, Zbl 06916180.
76. Behavior of the squeezing function near h-extendible boundary points, *Proc. Amer. Math. Soc.* 146 (2018), No 8, 3455-3457. IF 0.813, Q2. MR3803670, Zbl 1398.32013.
77. Gromov hyperbolicity of the Kobayashi metric on \mathbb{C} -convex domains (with M. Trybula), *J. Math. Anal. Appl.* 486 (2018), No 2, 1164-1178. IF 1.188, Q1. MR3852573, Zbl 1400.53033.
78. Gromov hyperbolicity of the Kobayashi metric (with L. Andreev and M. Trybula), *Pliska Stud. Math.* 30 (2019), 21-28. MR3898128, Zbl 1449.32009.
79. Comparison of the Bergman kernel and the Carathéodory-Eisenman volume (with P. J. Thomas), *Proc. Amer. Math. Soc.* 147 (2019), No 11, 4915-4919. IF 0.927, Q2. MR4011523, Zbl 1435.32012.
80. On the squeezing function and Fridman invariant (with K. Verma), *J. Geom. Anal.* 30 (2020), No 2, 1218-1225. IF 1.183, Q2. MR4081309, Zbl 1436.32048.
81. Estimates for the squeezing function near strictly pseudoconvex boundary points with applications (with M. Trybula), *J. Geom. Anal.* 30 (2020), No 2, 1359-1365. IF 1.183, Q2. MR4081316, Zbl 1436.32047.
82. An analogue of the squeezing function for projective maps (with P. J. Thomas), *Ann. Mat. Pura Appl.* 199 (2020), No 5, 1885-1894. IF 0.969, Q2. MR4142854, Zbl 1452.32016.

83. Growth of Sibony metric and Bergman kernel for domains with low regularity (with P. J. Thomas), *J. Math. Anal. Appl.* 499 (2021), No 1, 125018, 8 p. IF 1.417, Q1. MR4208030, Zbl 7329655.

84. Strong localization of invariant metrics (with. J. E. Fornæss), *Math. Ann.* 383 (2022), No 1-2, 353-360. IF 1.4, Q1. MR4444123, Zbl 07570331.

85. Visibility of Kobayashi geodesics in convex domains and related properties (with F. Bracci and P. J. Thomas), *Math. Z.* 301 (2022), No 2, 2011-2035. IF 0.8, Q3. MR4418345, Zbl 07525063.

86. Quantitative localization and comparison of invariant distances of domains in \mathbb{C}^n (with P. J. Thomas), *J. Geom. Anal.* 33 (2023), No 1, article number 35, 26 p. IF 1.1, Q2. MR4514121, Zbl 1510.32019.

87. Comparison and localization of invariant functions on strongly pseudoconvex domains, *Bull. London Math. Soc.* 55 (2023), No 4, 2052-2061. IF 0.9, Q2. MR4623701, Zbl 07738117.

88. Local and global visibility and Gromov hyperbolicity of domains with respect to the Kobayashi distance (with F. Bracci, H. Gaussier and P. J. Thomas), *Trans. Amer. Math. Soc.* 377 (2024), No 1, 471-493. IF 1.3, Q2. MR4684599, Zbl 07785453.

89. Lower estimates of the Kobayashi distance and limits of complex geodesics (with L. Kosinski), *Math. Ann.*, doi:10.1007/s00208-023-02694-8. IF 1.4, Q1.

90. Strongly Goldilocks domains, quantitative visibility, and applications (with A. Y. Ökten), *J. Math. Anal. Appl.* 534 (2024), No 2, 128130, 18 p. IF 1.3, Q2. MR4693833, Zbl 07808108.

91. Strong localizations of the Kobayashi distance (with A. Y. Ökten), *Proc. Amer. Math. Soc.* 152 (2024), No 6, 2439-2448. IF 1.0, Q2. Zbl 07843757.

92. Local and global notions of visibility with respect to Kobayashi distance, a comparison (with A. Y. Ökten and P. J. Thomas), *Ann. Pol. Math.* 132 (2024), No 2, 169-185. IF 0.5, Q4. MR4719763, Zbl 07828401.

93. A Gehring-Hayman inequality for strongly pseudoconvex domains (with L. Kosinski and P. J. Thomas), *Int. Math. Res. Not.*, doi:10.1093/imrn/rnae017. IF 1.0, Q2.

94. Explicit universal bounds for squeezing functions of (\mathbb{C}) -convex domains (with G. Bharali), *Int. J. Math.* 35 (2024), article ID: 2450031, 12 p. IF 0.6, Q3.

95. Some sharp inequalities for norms in \mathbb{R}^n and \mathbb{C}^n (with St. Gerdjikov), *Monatsh. Math.* (accepted). IF 0.9, Q2.

Монография: Invariant functions and metrics in complex analysis, *Dissert. Math.* 486 (2012), 100 p. MR2986334, Zbl 1276.32012.

Научнометодическа монография: Topics in functional equations (with T. Andreescu, Iu. Boreiko and O. Mushkarov), XYZ Press, Plano, TX, USA, 2012, 505 p.; 2nd edition, 2015, 529 p.; 3rd edition, 2020, 552 p.