

**СПИСЪК-2**  
**на публикациите на чл.-кор. проф. дфн Екатерина Бъчварова от периода 2010 – 2017**  
**по конкурса за академик на БАН – 2024 г.**

**1. Научни публикации в списания и поредици (21)**

*1.1. В чужбина (20)*

*1.1.1. В списания (13)*

Общ №	№	описание	год	IF	SCP	ISI
<b>132</b>	1	<b>Kirova, H., Barantiev, D., Batchvarova, E.</b> Evaluation of mesoscale modelling of a closed breeze cell against sodar data. Air Pollution Modeling and its Application XXV, Springer, Cham, 2018, ISBN:978-3-319-57645-9, ISSN:2213-8684, DOI:10.1007/978-3-319-57645-9_24, 151-155	2018			
<b>133</b>	2	<b>Kirova, Hristina, Batchvarova, Ekaterina.</b> Mesoscale simulation of meteorological profiles during the Sofia Experiment 2003. International Journal of Environment And Pollution, 61, 2, 2017, ISSN:0957-4352, DOI:10.1504/IJEP.2017.10006760, 134-147. ISI IF:0.448	2017			
<b>134</b>	3	Gryning, S.-E., Floors, R., Pena, A., <b>Batchvarova, E.</b> , Brummer, B. 2016, Weibull wind-speed distribution parameters derived from a combination of wind-lidar and tall-mast measurements over land, coastal and marine sites. Boundary Layer Meteorology, 159, 2, 329-348, ISSN:0006-8314, DOI:10.1007/s10546-015-0113-x, ISI IF:2.639	2016			
<b>135</b>	4	<b>Kirova, H., Barantiev, D., Batchvarova, E.</b> Numerical Modelling of Spring, Summer and Autumn Closed Breeze Cell in the Region of Ahtopol. Proceedings of the 3rd Bulgarian National Congress on Physical Sciences, Sofia, Bulgaria, 29.09 - 02.10, 2016, S06.27-1-13DVD, Heron Press - Sofia, 2016, ISBN:978-954-580-364-2	2016			
<b>136</b>	5	<b>Hristova, E., Georgieva, E., Velchev, K., Kirova, H., Nikolov, V., Syrakov, D., Prodanova, M., Batchvarova, E., Veleva, B., Petrov, A., Neykova, R., Branzov, H., Kolarova, M., Etropolski, E., Oruch I.</b> Composition of	2016			

		precipitations in the coastal area of Southeast Bulgaria. Proceedings of the 3rd Bulgarian National Congress on Physical Sciences, Sofia, Bulgaria, Sep. 29 - Oct. 02, 2016, S06-18-01-08, Heron Press, 2016, ISBN:978-954-580-364-2				
<b>137</b>	6	<b>Kirova, H., Barantiev, D., Nikolov, V., Batchvarova, E..</b> Wind field in a closed breeze cell in Ahtopol - modelling and observations, International scientific on-line journal. Science & Technologies, Volume V, Number 3, Union of Scientists - Stara Zagora, 2015, ISSN:ISSN 1314-4111, 25-29	2015			
<b>138</b>	7	<b>Georgieva, E., Oruc, I., Hristova, E., Velchev, K., Kirova, H., Syrakov, D., Prodanova, M., Neykova, R., Veleva, B., Barantiev, D., Petrov, A., Kolarova, M., Nikolov, V., Batchvarova, E., Branzov, H.</b> Assessment of trans-boundary problems. Case study for the atmospheric pollution in the cross-border region Burgas –Kirkclareli. Integrated Land-Use Modelling of Black Sea Estuaries, 2015, ISBN:ISBN 978-954-8436-28, 179-190	2015			
<b>139</b>	8	<b>Batchvarova, E, Kirova, H, Petrov, A, Barantiev, D, Kolarova, M,</b> Marenski, J, <b>Branzov, H.</b> Assessing the Impact of Port Bourgas on Air Quality During Different Seasons. Sustainable Development of Sea-Corridors and Coastal, I, Springer International Publishing, 2015, ISBN:978-3-319-11384-5, DOI:10.1007/978-3-319-11385-2_3, 29-38	2015			
<b>140</b>	9	<b>Batchvarova, E., 2015:</b> Special Issue on Harmonisation within Atmospheric Dispersion Modelling For Regulatory Purposes: Part I Preface., Int. J. Environment and Pollution, 57, 3-4, 109-110, Part 1, Inderscience Enterprises Ltd., 2015, eISSN: 1741-5101, ISSN: 0957-4352, SJR:0.25, ISI IF:0.433	2015			
<b>141</b>	10	<b>Batchvarova, E., 2015:</b> Special Issue on Harmonisation within Atmospheric Dispersion Modelling For Regulatory Purposes: Part II Preface, Int. J. Environment and Pollution, v 58, issue1-2, pages 1-2, Part 2, Inderscience Enterprises Ltd., 2015, ISSN online: 1741-5101 ISSN print: 0957-4352, 109-110. SJR:0.25, ISI IF:0.433	2015			
<b>142</b>	11	<b>Batchvarova, E., 2015:</b> Special Issue on Harmonisation within Atmospheric Dispersion Modelling For Regulatory Purposes: Part III Preface, Int. J. Environment and Pollution, 58, 4, 229-230, Part 3, Inderscience Enterprises Ltd., 2015, ISSN online: 1741-5101 ISSN print: 0957-4352, 109-110. SJR:0.25, ISI IF:0.433	2015			
<b>143</b>	12	Batchvarova E. , S-E Gryning <sup>1</sup> , Rogier Floors <sup>1</sup> , Claire Vincent <sup>1</sup> , Alfredo Peña <sup>1</sup> , and	2014	x	X	

		Torben Mikkelsen <sup>1</sup> , 2014: Measurements and modeling of the wind profile up to 600 meters at a flat coastal site, In Eds Steyn, DG; Builtjes, PJH; Timmermans, RMA, Book Series: NATO Science for Peace and Security Series C-Environmental Security, Chapter 95, 565-569.				
<b>144</b>	13	Batchvarova E, Gryning SE, Skov H, Sørensen LL, Kirova H, Münkel C (2014) Boundary-layer and air quality study at “Station Nord” in Greenland. In DG Steyn & R Mathur (eds), Air Pollution Modeling and its Application XXIII, Springer Proceedings in Complexity, DOI 10.1007/978-3-319-04379-1_86, Springer International Publishing Switzerland 2014, 525-529.	2014	X	x	
<b>145</b>	14	Kirova H, Batchvarova E, Nikolov V (2014) Evaluation of Mesoscale Model Profiles against Consecutive Radiosounding Data during the Sofia 2003 Experiment. In DG Steyn & R Mathur (eds), Air Pollution Modeling and its Application XXIII, Springer Proceedings in Complexity, DOI 10.1007/978-3-319-04379-1_87, Springer International Publishing Switzerland 2014, 531-534.	2014	x	x	
<b>146</b>	15	Gryning, S.-E., <b>Batchvarova, E.</b> , Floors, R., Pena, A., Brummer, B., Hahmann, A. N., Mikkelsen, T.. Long-Term Profiles of Wind and Weibull Distribution Parameters up to 600 m in a Rural Coastal and an Inland Suburban Area. Boundary-Layer Meteorology, 150, 2, Springer Netherlands, 2014, ISSN:0006-8314, DOI:10.1007/s10546-013-9857-3, 167-184. SJR:1.517, ISI IF:2.47	2014	2.47		
<b>147</b>	16	Neophytou, MKA (Neophytou, Marina K. -A.); Fernando, HJS (Fernando, Harindra J. S.); Batchvarova, E (Batchvarova, Ekaterina); Sandberg, M (Sandberg, Mats); Lelieveld, J (Lelieveld, Jos); Tryphonos, E (Tryphonos, Eleonora), 2014, Book Group Author(s): ASMEp Title: A scaling law for the Urban Heat Island phenomenon: Deductions from field measurements and comparisons with existing results from laboratory experimentsp Source: ASME FLUIDS ENGINEERING DIVISION SUMMER MEETING - 2014, VOL 1D: SYMPOSIA Article Number: V01DT28A009 Published: 2014, Accession Number: WOS:000379884600035, Conference Title: 4th ASME Joint US-European Fluids Engineering Division Summer Meeting, Conference Date: AUG 03-07, 2014, Conference Location: Chicago, IL, Conference Sponsors: ASME, Fluids Engn Div, ISBN: 978-0-7918-4624-7	2014			
<b>148</b>	17	Floors R., C. L. Vincent, S.-E. Gryning, A. Peña, E. Batchvarova, 2013:The Wind	2013	2.454	x	x

		Profile in the Coastal Boundary Layer: Wind Lidar Measurements and Numerical Modelling, <b>Boundary-Layer Meteorol</b> (2013) 147:469–491, DOI 10.1007/s10546-012-9791-9 (IF 5 years: 2.454; IF 2012: 2.291)				
149	18	Pal Sandip, Martial Haeffelin, and Ekaterina Batchvarova, 2013: Exploring a geophysical process-based attribution technique for the determination of the atmospheric boundary layer depth using aerosol lidar and near-surface meteorological measurements", <b>Journal of Geophysical Research: Atmospheres</b> , VOL. 118, Issue: 16 Pages: 9277-9295, doi:10.1002/jgrd.50710, 2013 (IF 5 years: 3.546; IF 2012: 3.174)	2013	3.546	x	x
150	19	Gryning S.-E., E. Batchvarova, R. Floors, 2013: A Study on the Effect of Nudging on Long-Term Boundary Layer Profiles of Wind and Weibull Distribution Parameters in a Rural Coastal Area, <b>Journal of Applied Meteorology and Climatology</b> , 52, 1201-1207, DOI: 10.1175/JAMC-D-12-0319.1 9 (IF 5 years: 2.391; IF 2012: 2.020)	2013	2.391	x	x
151	20	Gryning S.-E., E. Batchvarova, R. Floors, A. Peña, B. Brümmer, A. N. Hahmann, T. Mikkelsen, 2013: Long-term profiles of wind and Weibull distribution parameters up to 600 m in a rural 1 coastal and an inland suburban area, <b>Boundary-Layer Meteorol</b> (2013), 150: 167-184, DOI: 10.1007/s10546-013-9857-3 (IF 5 years: 2.454; IF 2012: 2.291)	2013	2.454	x	x
152	21	Schreier S. F., Suomi I., Broede P., Formayer H., Rieder H. E., Nadeem I., Jendritzky G., Batchvarova E., Weihs P., 2013: The uncertainty of UTCI due to uncertainties in the determination of radiation fluxes derived from numerical weather prediction and regional climate model simulations, <b>International Journal of Biometeorology</b> , Vol. 57, 2, 207-223, DOI: 10.1007/s00484-012-0525-y 9 (IF 5 years: 2.785; IF 2012: 2.590)	2013	2.472	x	x
153	22	Weihs P, Staiger H., Tinz B., Batchvarova E., Rieder H., Vuilleumier L., Maturilli M., Jendritzky G., 2012: The uncertainty of UTCI due to uncertainties in the determination of radiation fluxes derived from measured and observed meteorological data, <b>INTERNATIONAL JOURNAL OF BIOMETEOROLOGY</b> , 56, 3, 537-555, DOI: 10.1007/s00484-011-0416-7	2012	2.472	x	x
154	23	Gryning, Sven-Erik, Batchvarova, Ekaterina, Quante, Markus, Mathias, Volker, 2011: Evaluation of vertical profiles in mesoscale meteorological models based on observations for the COST728 study of winter 2003 PM episodes in Europe, In Steyn and	2012			

		Trini-Castelli (eds), Air Pollution Modelling and its Application XXI, Springer, 499 – 503.				
<b>155</b>	24	Pedersen, J. G., M. Kelly, S.-E. Gryning, R. Floors, E. <b>Batchvarova</b> , and A. Peña, 2012: Comparison of Large Eddy Simulations of a convective boundary layer with wind LIDAR measurements, <i>Adv. Sci. Res.</i> , 8, 83-86, ISSN: 1992-0628, eISSN: 1992-0636	2012		x	x
<b>156</b>	25	Floors, R., Batchvarova, E., Gryning, S-E, Hahmann, A. N., Pena, A., and Mikkelsen, T, 2011: Atmospheric boundary layer wind profile at a flat coastal site – wind speed lidar measurements and mesoscale modeling results, <i>Adv. Sci. Res.</i> , 6, 155–159, 2011, <a href="http://www.adv-sci-res.net/6/155/2011/">www.adv-sci-res.net/6/155/2011/</a> , doi:10.5194/asr-6-155-2011. ISSN: 1992-0628, eISSN: 1992-0636	2011		x	x
<b>157</b>	26	Barantiev, D., Novitzky, M., Batchvarova, E., 2011: Meteorological observations of the coastal boundary layer structure at the Bulgarian Black Sea coast, <i>Adv. Sci. Res.</i> , 6, 251–259, 2011, <a href="http://www.adv-sci-res.net/6/251/2011/">www.adv-sci-res.net/6/251/2011/</a> , doi:10.5194/asr-6-251-2011. ISSN: 1992-0628, eISSN: 1992-0636	2011		x	x
<b>158</b>	27	Floors, R., Gryning, S.-E., Pena, A., and Batchvarova, E., 2011: Analysis of diabatic flow modification in the internal boundary layer, <i>Meteorologische Zeitschrift</i> , vol.20, no. 6, 649-659, DOI: 10.1127/0941-2948/2011/0290. ISSN:0941-2948	2011	1.355	x	x
<b>159</b>	28	Batchvarova, E., Pisoni, E. and Finzi, G., 2011: Modelling and measurements of the atmospheric boundary layer in Sofia, Bulgaria, <i>Int. J. Environment and Pollution</i> , Vol. 46, issue 1-2, 61 -68. ISSN : 0957-4352	2011	0.606	x	x
<b>160</b>	29	Pisoni, E., Batchvarova, E., Carnevale, C., Candiani, G., Finzi, G.: 2011, Validation of a mesoscale meteorological simulation over Po valley, <i>Int. J. Environment and Pollution</i> , 47, 1-4, 149-157. ISSN : 0957-4352	2011	0.606	x	x
<b>161</b>	30	Batchvarova E., Finzi, G. and Pisoni, E., 2011: Simulazioni I modelli per la qualita dell'aria, <i>Mondo digitale</i> , no.1, marzo 2011, 53–57.	2011		x	x
<b>162</b>	31	Batchvarova E, E. Pisoni, and G. Finzi, 2010, (1.17) Evaluation of RAMS6.0 Boundary-Layer Simulation over Sofia (Bulgaria) D.G. Steyn and S.T. Rao (eds.), <i>Air Pollution Modeling and Its Application XX</i> , 103, DOI 10.1007/978-90-481-3812-8, 99-103.	2010			
<b>163</b>	32	Batchvarova E. and S.-E Gryning, 2010. The ability of mesoscale models to predict vertical profiles, D.G. Steyn and S.T. Rao (eds.), <i>Air Pollution Modeling and Its</i>	2010			

		Application XX, 103, DOI 10.1007/978-90-481-3812-8, 379-383.				
<b>164</b>	33	Batchvarova, E; Pisoni E, Finzi G, Gryning, S-E, 2010, Modeling and measurements of the ABL in Sofia, Bulgaria, 90th American Meteorological Society Annual Meeting. Atlanta, Georgia, (US), 17–21 Jan., 2010, 22nd Conference on Climate Variability and Change, In: Proceedings (online) paper P58, American Meteorological Society, 2010, (6 pages), <a href="http://ams.confex.com/ams/90annual/techprogram/paper_163577.htm">http://ams.confex.com/ams/90annual/techprogram/paper_163577.htm</a>	2010			

*1.1.2 В поредици и сборници от конференции (6)*

Общ №	№	описание	год	Scopus	ISI
<b>165</b>	34	<b>Batchvarova, E., Kirova, H.,</b> Gryning, S.-E., Skov, H., Sørensen, L. L.. How do pbl schemes in wrf describe summer and winter conditions at a high Arctic site?. Proceedings of the 18th International Conference on Harmonisation within Atmospheric Dispersion Modelling for Regulatory Purposes (harmo18), 9-12.Oct 2017, Bologna, Italy, 2017, 395-400	2017		
<b>166</b>	35	<b>Batchvarova, E., Calidonna, C., Barantiev, D., Kirova, H., Georgieva, E., Kolarova, M., Hristova, E., Syrakov, D., Prodanova, M., Ammoscato, I., Avolio, E., Gulli, D., Lo Feudo, T., Torcasio, C. R., Chianese, E., Riccio, A..</b> Meteorology and air pollution at a coastal site - experiment and modeling. Proceedings of the 18th International Conference on Harmonisation within Atmospheric Dispersion Modelling for Regulatory Purposes (harmo18), 9-12.Oct 2017, Bologna, Italy, 2017, 379-383	2017		
<b>167</b>	36	<b>Georgieva, E., Hristova, E., Syrakov, D., Prodanova, M, Batchvarova, E..</b> Preliminary evaluation of CMAQ modelled wet deposition of sulphur and nitrogen over Bulgaria. Proceedings of the 18th International Conference on Harmonisation within Atmospheric Dispersion Modelling for Regulatory Purposes (harmo18), 9-12.Oct 2017, Bologna, Italy, 2017, 51-55	2017		
<b>168</b>	37	<b>Kirova, H., Batchvarova, E., Barantiev, D..</b> Horizontal scale of closed breeze cells at the southern Bulgarian black sea coast. Proceedings of the 18th International	2017		

		<b>Conference on Harmonisation within Atmospheric Dispersion Modelling for Regulatory Purposes (harmo18), 9-12.Oct 2017, Bologna, Italy, 2017, 401-405</b>			
--	--	--	--	--	--

## 1.2. В България (1)

### 1.2.1. В списания (5)

<b>169</b>	38	<b>Barantiev, D., Batchvarova, E., Novitsky, E.. Breeze circulation classification in the coastal zone of the town of Ahtopol based on data from ground based acoustic sounding and ultrasonic anemometer. Bulgarian Journal of Meteorology and Hydrology (BJMH), 22, 5, National Institute of Meteorology and Hydrology at the Bulgarian Academy of Sciences, 2017, ISSN:0861-0762</b>	2017
<b>170</b>	39	Anton Petrov, Joana Valente, Kathrin Baumann-Stantzer, Ekaterina Batchvarova (2017), Applicability of Gaussian dispersion models for accidental releases in urban environment – results of the “Michelstadt” test case in COST Action ES1006, <i>BJMH</i> , vol. 22, No 3-4, 87-102	2017
<b>171</b>	40	<b>Batchvarova E., Kolarova M., Veleva B., Neykov N.M., Neytchev P.N., Videnov P. Gamanov, A, and Barantiev, D. (2011). The atmospheric boundary layer – parameterizations, observations and applications. <i>BJMH</i>,16, 41-53.</b>	
Редакторски и информационни статии			
<b>172</b>	41	Tatiana Spassova, Ekaterina Batchvarova (2017), Eightieth Anniversary of Vassil Andreev, <i>BJMH</i> , vol. 22, No 1-2, 73-76	2017
<b>173</b>	42	Ekaterina Batchvarova, Tatiana Spassova (2017), In remembrance of George Djolov, <i>BJMH</i> , vol. 22, No 3-4, 103-104	2017

## 1.2. В България

### 1.2.2. В поредици и сборници от конференции (6)

<b>174</b>	43	<b>Kirova, H., Barantiev, D., Batchvarova, E.. Numerical Modelling of Spring, Summer and Autumn Closed Breeze Cell in the Region of Ahtopol. Proceedings of the 3rd</b>	2016

		<b>Bulgarian National Congress on Physical Sciences, Sofia, Bulgaria, 29.09 - 02.10, 2016, S06.27-1-13DVD, Heron Press - Sofia, 2016, ISBN:978-954-580-364-2</b>	
<b>175</b>	44	Hristova E., E. Georgieva, K.Velchev, H. Kirova, I. Oruc, V. Nikolov, D. Syrakov, M. Prodanova, E. Batchvarova, B.Veleva, A. Petrov, R. Neikova, H. Branzov, M. Kolarova, E. Etropolski (2016), Composition of Precipitations in the Coastal Area of Southeast Bulgaria, <i>3rd National Congress on Physical Sciences</i> , 29 Sep. – 2 Oct. 2016, Sofia	2016
<b>176</b>	45	<b>Георгиев, О., Велева, Б., Христова, Е., Бъчварова, Е., Коларова, М.. Връзка между метеорологичните характеристики и замърсяването на въздуха в София. III Национален Конгрес по Физически Науки, 29.09 - 02.10.2016г. CD, Херон Прес-София, 2016, ISBN:978-954-580-364-2</b>	2016
<b>177</b>	46	<b>Петров, М., Бъчварова, Е. А., Коларова,. Оценка на работата на гаусовия дисперсионен модел AERMOD като средство за ранно предупреждение при замърсяване на въздуха в градска среда. III Национален Конгрес по Физически Науки, 29.09 - 02.10.2016 г., Херон Прес-София, 2016, ISBN:978-954-580-364-2</b>	2016
<b>178</b>	47	Артинян Ерам, Екатерина Бъчварова, Станислава Радева, Надежда Шопова, Андрей Налджиян, Атанас Васев, Христо Червенков (2016), Експериментално измерване и числено симулиране на енергийния поток и потока на влагата между атмосфера и земя в две синоптични станции на НИМХ – БАН, <b>III Национален Конгрес по Физически Науки, 29.09 - 02.10.2016 г., Херон Прес-София, 2016, ISBN:978-954-580-364-2</b>	2016
<b>179</b>	48	Васил Андреев, Екатерина Бъчварова (2013), Научни изследвания, приложни и оперативни дейности по “Физика на Земята, атмосферата и Космоса”, <b>II Национален Конгрес по Физически Науки, 25-29.09.2013, Херон Прес, София, 2016, ISBN: 978-954-580-333-8</b>	2013
<b>180</b>	49	Христина Кирова, Екатерина Бъчварова, (2013), Верификация на мезометеорологичен модел по аерологични данни от експеримента София 2003, <b>II Национален Конгрес по Физически Науки, 25-29.09.2013, Херон Прес, София, 2016, ISBN: 978-954-580-333-8</b>	2013
<b>181</b>	50	Дамян Барантиев, Екатерина Бъчварова, Михаил Новицки, (2013), Изследване на крайбрежния граничен слой в Ахтопол с използване на дистанционно звуково сондиране на атмосферата, <b>II Национален Конгрес по Физически Науки, 25-29.09.2013, Херон Прес, София, 2016, ISBN: 978-954-580-333-8</b>	2013



**2. Издадени (части от) научни книги и доклади по проекти с ISBN и/или ISSN (3)**

Общ №	№	описание	год
<b>182</b>	51	Андреев, В., Александров, В и Е. Бъчварова, 2010: Актуални рискови явления в атмосферата, ISBN 978-954-9526-76-9, “Деметра ЕДДД”, София, 278 стр.	2010
<b>183</b>	52	Stenzel Sirma, Kathrin Baumann-Stanzer, Salih Gashi, Bashkim Thaçi, <b>Ekaterina Batchvarova, Tatiana Spassova</b> , Dispersion modeling of accidentally released toxic gases (pp 42 – 60), <i>In</i> JOINT RESEARCH AND TECHNOLOGY DEVELOPMENT, Projects 2007–2010, Multidimensional Project for the Implementation of an Institutionalised Partnership between Austria and Kosovo in the Field of Higher Education, Research and Innovation, Viena-Prishtina, 2010, 236 p.	2010
<b>184</b>	53	Gryning S.-E., J. Badger, A. N. Hahmann and E. Batchvarova, 2014: Current status and challenges in wind energy assessment, Chapter 13 In A. Troccoli et al. (eds.), Weather Matters for Energy, DOI: 10.1007/978-1-4614-9221-4_13, Springer Science+Business Media New York 2014	2014