

Complete Publication List

Peer-Reviewed Articles

1. Poulsen, M. B., Jochum, M., Maddison, J. R., Marshall, D. P., & Nuterman, R. (2019). A Geometric Interpretation of Southern Ocean Eddy Form Stress. *Journal of Physical Oceanography*, 49(10), 2553-2570. <https://doi.org/10.1175/JPO-D-18-0220.1>
2. Nielsen, S. B., Jochum, M., Pedro, J. B., Eden, C., & Nuterman, R. (2019). Two-Timescale Carbon Cycle Response to an AMOC Collapse. *Paleoceanography and Paleoclimatology*, 34(4), 511-523. <https://doi.org/10.1029/2018PA003481>
3. Häfner, D., Jacobsen, R. L., Eden, C., Kristensen, M. R. B., Jochum, M., Nuterman, R., & Vinter, B. (2018). Veros v0.1-a fast and versatile ocean simulator in pure Python. *Geoscientific Model Development*, 11(8), 3299-3312. <https://doi.org/10.5194/gmd-11-3299-2018>
4. Nielsen, S. B., Jochum, M., Eden, C., & Nuterman, R. (2018). An energetically consistent vertical mixing parameterization in CCSM4. *Ocean Modelling*, 127, 46-54. <https://doi.org/10.1016/j.ocemod.2018.03.002>
5. Nielsen, L. T., Adalgeirsdottir, G., Gkinis, V., Nuterman, R., & Hvidberg, C. S. (2018). The effect of a Holocene climatic optimum on the evolution of the Greenland ice sheet during the last 10 kyr. *Journal of Glaciology*, 64(245), 477-488. <https://doi.org/10.1017/jog.2018.40>
6. Poulsen, M. B., Jochum, M., & Nuterman, R. (2018). Parameterized and resolved Southern Ocean eddy compensation. *Ocean Modelling*, 124, 1-15. <https://doi.org/10.1016/j.ocemod.2018.01.008>
7. Nerobelov, G., Sedeeva, M., Mahura, A., Nuterman, R., Mostamandi, S., & Smyshlyaev, S. (2018). ONLINE INTEGRATED MODELING ON REGIONAL SCALE IN NORTH-WEST RUSSIA: EVALUATION OF AEROSOLS INFLUENCE ON METEOROLOGICAL PARAMETERS. *Geography, Environment, Sustainability*, 11(2), 73-83. <https://doi.org/10.24057/2071-9388-2018-11-2-73-83>
8. Mahura, A., Gonzalez-Aparicio, I., Nuterman, R., & Baklanov, A. (2018). Seasonal impact analysis on population due to continuous sulphur emissions from Severonikel smelters of the Kola Peninsula. *Geography, Environment, Sustainability*, 11(1), 130-144. <https://doi.org/10.24057/2071-9388-2018-11-1-130-144>
9. Baklanov, A., Korsholm, U. S., Nuterman, R., Mahura, A., Nielsen, K. P., Sass, B. H., ... Gonzalez-Aparicio, I. (2017). Enviro-HIRLAM online integrated meteorology-chemistry modelling system: strategy, methodology, developments and applications (v7.2). *Geoscientific Model Development*, 10(8), 2971-2999. <https://doi.org/10.5194/gmd-10-2971-2017>
10. Penenko A., Penenko V. Nuterman R. et al. (2015). Direct variational data assimilation algorithm for atmospheric chemistry data with transport and transformation model, Proceedings of SPIE, Vol. 9680, 968076. <http://spie.org/Publications/Proceedings/Paper/10.1117/12.2206008>
11. Gonzalez-Aparicio, I., Baklanov, A., Hidalgo, J., Korsholm, U. S., Nuterman, R., & Mahura, A. (2014). Impact of city expansion and increased heat fluxes scenarios on the urban boundary layer of Bilbao using Enviro-HIRLAM. *Urban Climate*, 10(5), 831-845. <https://doi.org/10.1016/j.uclim.2014.07.010>
12. Gonzales, I., Hildago, J., Baklanov, A., Korsholm, U., Nuterman, R., Mahura, A., Santa-Coloma, O. (2013). Urban boundary layer analysis in a coastal terrain using Enviro-HIRLAM. Theoretical and applied climatology. DOI: 10.1007/s00704-012-0808-6. <http://link.springer.com/article/10.1007%2Fs00704-012-0808-6>
13. Mahura, A., Nuterman, R., Petrova, I., & Amstrup, B. (2013). Atmospheric Trajectory and Chemical Transport Modelling for Elevated Ozone Events in Denmark. *Atmospheric and Climate Sciences*, 2013(1), 87-99. <https://doi.org/10.4236/acs.2013.31011>
14. Langner, J., Engardt, M., Baklanov, A., Christensen, J. H., Gauss, M., Geels, C., Hedegaard, G. B., Nuterman, Roman, Simpson, D., Soares, J., Sofiev, M., Wind, P. & Zakey, A. (2012). A multi-model study of impacts of climate change on surface ozone in Europe. *Atmospheric Chemistry and Physics*, 12, 10423-10440. <https://doi.org/10.5194/acp-12-10423-2012>

15. Di Sabatino, S., Buccolieri, R., Olesen, H. R., Ketzel, M., berkowicz, R., Franke, J., Schatzmann, M., Schlutzen, K. H., Leitl, B., Britter, R., Borrego, C. & Nuterman, R. (2011). COST 732 in practice: the MUST model evaluation exercise. *International Journal of Environment and Pollution*, 44(1), 403-418. <https://doi.org/10.1504/IJEP.2011.038442>
16. Nuterman, R., Starchenko, A. V., & Baklanov, A. (2011). Numerical model of urban aerodynamics and pollution dispersion. *International Journal of Environment and Pollution*, 44(1). <https://doi.org/10.1504/IJEP.2011.038440>
17. Nuterman, R., Baklanov, A., & Starchenko, A. V. (2010). Modeling of aerodynamics and pollution dispersion from traffic in the urban sublayer. *Mathematical Models and Computer Simulations*, 2(6), 738-752.
18. Baklanov, A., & Nuterman, R. (2009). Multi-scale atmospheric environment modelling for urban areas. *Advances in Science and Research*, 3, 53-57. <https://doi.org/10.5194/asr-3-53-2009>

Books

1. Baklanov, Alexander A., Vladimir V. Penenko, Alexander G. Mahura, Anna A. Vinogradova, Nikolay F. Elansky, Elena A. Tsvetova, Olga Yu. Rigina, Leonid O. Maksimenkov, Roman B. Nuterman, Fedor A. Pogarskii, and Ashraf Zaakey. (2013) Aspects of Atmospheric Pollution in Siberia. In: Regional Environmental Changes in Siberia and Their Global Consequences, Series: *Springer Environmental Science and Engineering*. Groisman, Pavel Ya., Gutman, Garik (Eds.), , 357 p., ISBN 978-94-007-4568-1, pp. 303-346, <http://link.springer.com/book/10.1007%2F978-94-007-4569-8>
2. Baklanov A., Mahura A., Korsholm U., Nuterman R., Sorensen J.H., Amstrup B. (2011) Overview of DMI ACT-NWP modelling systems, in the book "Integrated Systems of Meso-Meteorological and Chemical Transport Models" (Eds.: Baklanov, A., Mahura A., Sokhi R.S.), *Springer*, 186 p., ISBN: 978-3-642-13979-6. <http://link.springer.com/book/10.1007%2F978-3-642-13980-2>
3. Nuterman R. B., Baklanov A. A., Starchenko A. V. (2009) Application of Microscale Model for Development of Urban Canopy Parameterization Scheme for Mesoscale Models, in the book "Mesoscale meteorology and air pollution" (Ed.: Alexander Baklanov), *Ecologia*, 240 p., ISBN 978-966-8740-53-4.

Reports

1. Baklanov A., Kaas E., Sigsgaard T., Bønløkke J.H., Baklanov A., Nuterman R., Korsholm U.S., Armstrup B., Brandt J., Gross A., Frohn L.M., Christensen J.H., Hansen A.B., Hansen K.M., Geels C., Sigsgaard-Andersen M.-L., Sørensen B., Karllson K., Balyk O., Brønnum-Hansen H., Flachs E.M., Sørensen J., Kruse M., Sætterstrøm B. (2011) Description of the CEEH integrated 'Energy-Environment-Health-Cost' modelling framework system, ISSN: 1904-7495, 68 pp. http://www.cee.dk/CEEH_Reports/Report_1/index.html
2. Nuterman R., Amstrup B., Baklanov A., Mahura A., Zaakey A., Banciu D., Diaconu O., Tascu S., Pietrisi M., Dumitrache R. (2011) Core-downstream processing chain test cases - Requirements report on downscaling of European AQ forecasts to street level using a deterministic approach, EU FP7 MACC Report D_O-INT_2.8.1-2, 54 pp. http://www.gmes-atmosphere.eu/documents/deliverables/o-int/MACC-D_OINT_2_8_report_fv.pdf
3. Amstrup B., Baklanov A., Lorenzen T., Mahura A., Nuterman R., Weismann J., Banciu D., Tascu S., Pietrisi M., Dumitrache R., Caian M. (2010) Core-downstream processing chain test cases - Setup of the two downscaling model configurations, EU FP7 MACC Report D_O-INT_2.5.1-2, 18 pp. http://www.gmes-atmosphere.eu/documents/deliverables/o-int/MACC-D_OINT_2_5_1-2_report_fv_sent.pdf
4. Amstrup B., Baklanov A., Feddersen H., Lorenzen T., Mahura A., Nuterman R., Weismann J., Caian M., Rada C., Dumitrache R., Craciunescu V. (2010) Core-downstream processing chain test cases - Evaluation of current R-ENS individual and ensemble forecasts in the Copenhagen and Bucharest areas, EU FP7 MACC Report D_O-INT_2.4.1-2, 36 pp. http://www.gmes-atmosphere.eu/documents/deliverables/o-int/MACC-D_OINT_2.4.1-2%20Report_final.pdf
5. Mahura A., Nuterman R., Petrova I., Amstrup B. (2010) Atmospheric Trajectory and Chemical Transport Modelling for Elevated Ozone Events in Denmark, DMI Scientific Report 10-02, ISBN: 978-87-7478-604-7, ISSN: 1399-1949, 26 pp. <http://www.dmi.dk/fileadmin/Rapporter/SR/sr10-04.pdf>

6. González-Aparicio I., Nuterman R., Korsholm U., Mahura A., Acero J.-Á., Hidalgo J. and Baklanov A. (2010) Land-use Database Processing Approach for Meso-Scale Urban NWP Model Initialization, DMI Scientific Report 10-02, ISBN: 978-87-7478-593-4, ISSN: 1399-1949, 32 pp.
<http://www.dmi.dk/fileadmin/Rapporter/SR/sr10-02.pdf>
7. Nuterman R. and Baklanov A. (2007) Overview and Application of Obstacle Resolved Models for Air Flow and Pollution Transport Simulations, DMI Scientific Report 07-03, ISBN: 978-87-7478-549-1, ISSN: 1399-1949, 36 pp.