

# Peer-Reviewed Articles/ Chapters/ Books

## MANUSCRIPTS IN REVIEW/ TO BE SUBMITTED/ IN PREPARATION

1. (2024) – Foreback, B., Clusius, P. S., Baykara, M., **Mahura, A.**, Pichelstorfer, L., Xavier, C., Zhou, P., Kokkonen, T., Kerminen, V.-M., Liu, Y., Xia, M., Chen, X., Hua, C., Wang, Z., Nuterman, R., Baklanov, A., Ciarelli, G., Sinclair, V., Liu, Z.-S. & Ashu, T. A. & 4 others (2024): Severe haze episodes in Beijing may be influenced by emissions in far western China. *In review, In Air quality, atmosphere & health.*
2. (2025) – Pankratov F., **Mahura A.**, Petaja T., et al. list of co-authors (2025): Measurement report: Atmospheric mercury measurements at the Russian Arctic station Amderma and connection with eruptions of Icelandic volcanoes. *In Review, Atm Chem & Phys*
3. (2025+) – Savenets M., **Mahura A.**, Nuterman R., et al. list of co-authors (2025): Diverse aerosol effects under changeable synoptic conditions revealed during the April 2020 wildfire and dust storm events in Ukraine. *To be submitted to Atm Chem & Phys*
4. (2024+) – **Mahura A.**, Nuterman R., Baklanov A., Makkonen R., Petaja T., Kulmala M., (2025): Evaluation of Parameterizations for Sea-Spray Emissions in the Arctic Using Enviro-HIRLAM Seamless Modelling. *In Preparation for ACP*
5. (2024+) – Heibati B., **A. Mahura**, J. Jaakkola, et al. (2025): Covid-19 in urban Finland: Seamless modelling of meteorology and air pollution to estimate impacts. *In Preparation for MDPI Atmosphere*
6. (2024+) – **Mahura A.**, Ezau I., Nuterman R. et al. list of co-authors (2025): Integrated Urban Environmental Modeling: from Development to Implementation. *In Preparation for ACP*
7. (2024+) – Esau I., **Mahura A.**, Nuterman R., et al. list of co-authors (2025): High-Resolution Integrated Urban Environmental Modeling. *In Preparation for Atm Poll Res*
8. (2025+) – Lappalainen H.K., **Mahura A.**, Riuttanen L. et al. list of co-authors (2025): Virtual Exchange concept development for university education and for students with different science background. *In Preparation for J. of Virtual Exchanges*
9. (2025+) – Shevchenko O., Ovcharuk V., **Mahura A.**, et al. list of co-authors (2025): Virtual Exchange Moderation: Training Programs, Learning Resources, and Climate Data Applications. *In Preparation for J. of Virtual Exchanges*

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10. (2025) – **Mahura A.**, Nuterman R. (2025): Theory of atmospheric pollution dispersion. *Chapter 7 in Air Quality Science, Impacts, and Management (Editor Ranjeet S. Sokhi)*, Elsevier, 2025, 193-216, ISBN 9780128225912, <https://doi.org/10.1016/B978-0-12-822591-2.00007-X>
11. (2024) – **Mahura A.**, Baklanov A., Makkonen R., Boy M., Petäjä T., Lappalainen H.K., Nuterman R., Kerminen V-M., Arnold S.R., Jochum M., Shvidenko A., Esau I., Sofiev M., Stohl A., Aalto T., Bai J., Chen Ch., Cheng Ya., Drofa O., Huang M., Järvi L., Kokkola H., Kouznetsov R., Li T., Malguzzi P., Monks S., Poulsen M.B., Noe S.M., Palamarchuk Yu., Foreback B., Clusius P., Rasmussen T.A.S., She J., Sørensen J.H., Spracklen D., Su H., Tonttila J., Wang S., Wang J., Wolf-Grosse T., Yu Y., Zhang Q., Zhang W., Zhang We., Zheng S., Li S., Li Y., Zhou P., & Kulmala M. (2024): Towards seamless environmental prediction – development of Pan-Eurasian EXperiment (PEEX) modelling platform. *Big Earth Data*, 8(2), 189-230. <https://doi.org/10.1080/20964471.2024.2325019>
12. (2024) – Savenets M., Rybchynska V., **Mahura A.**, Nuterman R., Baklanov A., Kulmala M., Petäjä T. (2024): Seamless Modeling of Direct and Indirect Aerosol Effects during April 2020 Wildfire Episode in Ukraine. *Atmosphere*. 2024; 15(5):550. <https://doi.org/10.3390/atmos15050550>
13. (2024) – Foreback, B., **Mahura, A.**, Clusius, P., Xavier, C., Baykara, M., Zhou, P., Nieminen, T., Sinclair. V., Kerminen, V.M., Kokkonen, T. V., Hakala, S., Aliaga, D., Makkonen, R., Baklanov, A., Nuterman, R., Xia, M., Hua, C., Liu, Y., Kulmala, M., Paasonen, P. & Boy, M: (2024): A new implementation of FLEXPART with Enviro-HIRLAM meteorological input, and a case study during a heavy air pollution event. *Big Earth Data*, 8(2), 397-434. <https://doi.org/10.1080/20964471.2024.2316320>
14. (2023) – Kulmala M., Kokkonen T., Ezhova E., Baklanov A., **Mahura A.**, Mammarella I., Bäck J., Lappalainen H.K., Tyuryakov S., Kerminen V-M., Zilitinkevich S., Petäjä T. (2023): Aerosols, Clusters, Greenhouse Gases, Trace Gases and Boundary-Layer Dynamics: on Feedbacks and Interactions. *Boundary-Layer Meteorology*, <https://doi.org/10.1007/s10546-022-00769-8>
15. (2023) – Dryukova, E. D., Nerobelov, G. M., Sedeeva, M. S., Kiselev, A. V., Mahura, A. & Gorny, V. I. (2023): Integration of Satellite Monitoring and Mathematical Modeling in Analyzing the Nature of Elevated Sulfur Dioxide Concentrations in the Surface Air of Northern Finland. *Atmospheric and oceanic physics*. 59, 390-399. <https://doi.org/10.1134/S0001433823040047>

16. (2022) – Savenets, M., Pysarenko, L., Krakovska, S., **Mahura, A.**, Petäjä, T. (2022): Enviro-HIRLAM model estimates of elevated black carbon pollution over Ukraine resulted from forest fires. *Atmos. Chem. Phys.*, 22, 15777–15791, <https://doi.org/10.5194/acp-22-15777-2022>
17. (2022) – Lappalainen, H. K., Petäjä, T., Vihma, T., Räisänen, J., Baklanov, A., Chalov, S., Esau, I., Ezhova, E., Leppäranta, M., Pozdnyakov, D., Pumpanen, J., Andreae, M. O., Arshinov, M., Asmi, E., Bai, J., Bashmachnikov, I., Belan, B., Bianchi, F., Biskaborn, B., Boy, M., Bäck, J., Cheng, B., Chubarova, N., Duplissy, J., Dyukarev, E., Eleftheriadis, K., Forsius, M., Heimann, M., Juhola, S., Konovalov, V., Konovalov, I., Konstantinov, P., Köster, K., Lapshina, E., Lintunen, A., **Mahura, A.**, Makkonen, R., Malkhazova, S., Mammarella, I., Mammola, S., Buenrostro Mazon, S., Meinander, O., Mikhailov, E., Miles, V., Myslenkov, S., Orlov, D., Paris, J.-D., Pirazzini, R., Popovicheva, O., Pulliainen, J., Rautiainen, K., Sachs, T., Shevchenko, V., Skorokhod, A., Stohl, A., Suhonen, E., Thomson, E. S., Tsidilina, M., Tynkkynen, V.-P., Uotila, P., Virkkula, A., Voropay, N., Wolf, T., Yasunaka, S., Zhang, J., Qiu, Y., Ding, A., Guo, H., Bondur, V., Kasimov, N., Zilitinkevich, S., Kerminen, V.-M., and Kulmala, M.: (2022): Overview: Recent advances in the understanding of the northern Eurasian environments and of the urban air quality in China – a Pan-Eurasian Experiment (PEEX) programme perspective, *Atmos. Chem. Phys.*, 22, 4413–4469, <https://doi.org/10.5194/acp-22-4413-2022>
18. (2022) – Noe S.M., K. Tabakova, **A. Mahura**, H.K. Lappalainen, M. Kosmale, J. Heilimo, R. Salzano, M. Santoro, R. Salvatori, A. Spolaor, W. Cairns, C. Barbante, F. Pankratov, A. Humbert, J.E. Sonke, K.S. Law, T. Onishi, J-D. Paris, H. Skov, A. Massling, A. Dommergue, M. Arshinov, D. Davydov, B. Belan, T. Petäjä (2022): Arctic observations and sustainable development goals – Contributions and examples from ERA-PLANET iCUPE data. *Environmental Science & Policy*, Vol 132, 323-336, <https://doi.org/10.1016/j.envsci.2022.02.034>
19. (2021) – Nuterman, R., **Mahura, A.**, Baklanov, A., Amstrup, B., Zakey, A. (2021): Downscaling system for modeling of atmospheric composition on regional, urban and street scales, *Atmos. Chem. Phys.*, 21, 11099–11112, 2021, <https://doi.org/10.5194/acp-21-11099-2021>
20. (2021) – Ezhova E., Orlov D., Suhonen E., Kaverin D., **Mahura A.**, Gennadinik V., Kukkonen I., Drozdov D., Lappalainen H.K., Melnikov V., Petäjä T., Kerminen V-M., Zilitinkevich S., Malkhazova S.M., Christensen T.R., Kulmala M. (2021): Climatic Factors Influencing the Anthrax Outbreak of 2016 in Siberia, Russia. *EcoHealth*, 2021 <https://doi.org/10.1007/s10393-021-01549-5>
21. (2021) – Hussein T, Löndahl J, Thuresson S, Alsved M, Al-Hunaiti A, Saksela K, Aqel H, Junninen H, **Mahura A.**, Kulmala M. (2021): Indoor Model Simulation for COVID-19 Transport and Exposure, *International Journal of Environmental Research and Public Health*, 18(6), 2927, 2021, <https://doi.org/10.3390/ijerph18062927>
22. (2021) – Esau I., Bobylev L., Donchenko V., Gnatiuk N., Lappalainen H. K., Konstantinov P., Kulmala M., **Mahura A.**, Makkonen, R., Manvelova, A., Miles, V., Petaja, T., Poutanen, P., Fedorov, R., Varentsov, M., Wolf, T., Zilitinkevich, S., & Baklanov, A. (2021): An enhanced integrated approach to knowledgeable high-resolution environmental quality assessment. *Environmental Science & Policy*, 122, 1-13. <https://doi.org/10.1016/j.envsci.2021.03.020>
23. (2020) – Al-Kloub M.M., **Mahura A.**, Baklanov A., Atashi N., Hussein T. (2020): Model Simulations of Local Meteorological Condition in the Vicinity of a Hypothetical Nuclear Power Plant in Jordan, *Jordan Journal of Earth and Environmental Sciences*, 11, 26–37, 2020, [http://jjees.hu.edu.jo/files/Vol11No1/JJEES\\_Vol\\_11\\_No\\_1\\_P4.pdf](http://jjees.hu.edu.jo/files/Vol11No1/JJEES_Vol_11_No_1_P4.pdf)
24. (2020) – Petäjä, T., Duplissy, E.-M., Tabakova, K., Schmale, J., Altstädter, B., Ancellet, G., Arshinov, M., Balin, Y., Baltensperger, U., Bange, J., Beamish, A., Belan, B., Berchet, A., Bossi, R., Cairns, W. R. L., Ebinghaus, R., El Haddad, I., Ferreira-Araujo, B., Franck, A., Huang, L., Hyvärinen, A., Humbert, A., Kalogridis, A.-C., Konstantinov, P., Lampert, A., MacLeod, M., Magand, O., **Mahura, A.**, Marelle, L., Masloboev, V., Moisseev, D., Moschos, V., Neckel, N., Onishi, T., Osterwalder, S., Ovaska, A., Paasonen, P., Panchenko, M., Pankratov, F., Pernov, J. B., Platis, A., Popovicheva, O., Raut, J.-C., Riandet, A., Sachs, T., Salvatori, R., Salzano, R., Schröder, L., Schön, M., Shevchenko, V., Skov, H., Sonke, J. E., Spolaor, A., Stathopoulos, V. K., Strahlendorff, M., Thomas, J. L., Vitale, V., Vratolis, S., Barbante, C., Chabrillat, S., Dommergue, A., Eleftheriadis, K., Heilimo, J., Law, K. S., Massling, A., Noe, S. M., Paris, J.-D., Prévôt, A. S. H., Riipinen, I., Wehner, B., Xie, Z., and Lappalainen, H. K. (2020): Overview: Integrative and Comprehensive Understanding on Polar Environments (iCUPE) – concept and initial results, *Atmos. Chem. Phys.*, 20, 8551–8592, 2020, <https://doi.org/10.5194/acp-20-8551-2020>
25. (2018) – Pankratov, F., **Mahura, A.**, Petäjä, T., Popov, V., Masloboev, V. (2018): Elevated atmospheric mercury concentrations at the Russian polar station Amderma during Icelandic volcanoes' eruptions, *Atmos. Chem. Phys. Discuss. [preprint]*, <https://doi.org/10.5194/acp-2018-1228>, 2018
26. (2018) – 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*; 2018, 11(2): 73-83, <https://doi.org/10.24057/2071-9388-2018-11-2-73-83>
27. (2018) – **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*; 2018, 11(1): 130-144, DOI:10.24057/2071-9388-2018-11-1-130-144
28. (2018) – Lappalainen H.K., Altimir N., Kerminen V., Petäjä T., Makkonen R., Alekseychik P., Zaitseva N., Bashmakova I., Kujansuu J., Lauri A., Haapanala P., Mazon S.B., Borisova A., Konstantinov P., Chalov S., Laurila T., Asmi E., Lihavainen

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29. (2018) – Lappalainen H.K., M. Kulmala, J. Kujansuu, T. Petäjä, **A. Mahura**, G. de Leeuw, S. Zilitinkevich, M. Juustila, V-M. Kerminen, B. Bornstein, Z. Jiahua, X. Yong, Q. Yubao, L. Dong, L. Jie, G. Huadong (2018): The Silk Road agenda of the Pan-Eurasian EXperiment (PEEX) program. *Big Earth Data*, 2:1, 8-35, DOI: 10.1080/20964471.2018.1437704
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