

Petteri Uotila: peer-reviewed scientific articles

April 19, 2022

1. Nie, Y., P. Uotila, Impacts of model parameter uncertainty on sea ice concentration budgets in the Southern Ocean, in preparation, 2022.
2. Hanna K. Lappalainen, Timo Vihma, Eija Asmi, Alexander Baklanov, Peter Bauer, Paul Arthur Berkman, Federico Bianchi, Valery Bondur, Jaana Bäck, Torben Røjle Christensen, Richard Davy, Igor Esau, Ekaterina Ezhova, Kristina Gordo, Huadong Guo, Torill Hamre, Angelika Humbert, Vladimir V. Ivanov, Veli-Matti Kerminen, Lukas Kohl, Eva Kruemmel, Jan Rene Larsen, Heikki Lihavainen, Lisa Loseto, Risto Makkonen, Cecilie Mauritzen, Outi Meinander, Geir Ottersen, Peter Pulsifer, Yubao Qui, Arja Rautio, Stein Sandven, Britta K. Sannel, Sandy Starkweather, Mikko Strahlendorff, Lise-Lotte Sørensen, **Petteri Uotila**, Manfred Wendisch, Vladimir Vorobyev, Olga Voronova, Alla Zima, Markku Kulmala and Tuukka Petäjä, From the science based gap analysis of the arctic feedbacks and interactions research needs & data availability to society impact, AASCO, in preparation, 2022.
3. **Uotila, P.**, J. Siponen, E. Rinne and S. Tietsche, A means-corrected estimate for the Arctic sea-ice volume in 1990–2019, *The Cryosphere*, in preparation, 2021.
4. Karvonen, J., Rinne, E., Sallila, H., **Uotila, P.**, and Mäkynen, M.: Arctic Sea Ice Thickness Estimation Based on CryoSat-2 Radar Altimeter and Sentinel-1 Dual-Polarized SAR, *The Cryosphere Discuss.* [preprint], <https://doi.org/10.5194/tc-2021-185>, accepted, 2022.
5. Nie, Y., P. Uotila, B. Cheng, F. Massonnet, N. Kimura, A. Cipollone, X. Lv, Southern Ocean sea ice concentration budgets of five ocean-sea ice reanalyses, *Clim. Dyn.*, doi:10.1007/s00382-022-06260-x, 2022.
6. Lappalainen, H., 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. Y., Duplissy, J., Dyukarev, E., Eleftheriadis, K., Forsius, M., Heimann, M., Juhola, S., Konovalov, V., Konovalov, I., Konstantinov, P., Koster, K., Lapsina, E., Lintunen, A., Mahura, A., Makkonen, R., Malkhazova, S., Mammarella, I., Mammola, S., Mazon, S., Meinander, O., Mikhailov, E., Miles, V., Myslenko, 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., Qui, Y., Ding, A., Guo, H., Bondur, V., Kasimov, N., Zilitinkevich, S., Kerminen, V.-M., and Kulmala, M.: Overview: Recent advances on the understanding of the Northern Eurasian environments and of the urban air quality in China - Pan Eurasian Experiment (PEEX) program perspective, *Atmos. Chem. Phys.*, doi:10.5194/acp-22-4413-2022, 2022.
7. Yan, Y., Gu, W., Gierisch, A. M. U., Xu, Y., and **Uotila, P.**: NEMO-Bohai 1.0: a high-resolution ocean and sea ice modelling system for the Bohai Sea, China, *Geosci. Model Dev.*, 5, 1269–1288, doi:10.5194/gmd-15-1269-2022, 2022.
8. Boeira Dias, F., C. M. Domingues, S. M. Marsland, S. R. Rintoul, **P. Uotila**, R. Fiedler, N. L. Bindoff, R. Matear, and A. Savita, Subpolar Southern Ocean response to changes in the surface momentum, heat and freshwater fluxes under 2xCO₂, *J Climate*, 34(21), 8755–8775, doi:10.1175/JCLI-D-21-0161.1, 2022.
9. Döscher, R., M. Acosta, A. Alessandri, P. Anthoni, A. Arneth, T. Arsouze, T. Bergmann, R. Bernadello, S. Boussetta, L.-P. Caron, G. Carver, M. Castrillo, F. Catalano, I. Cvijanovic, P. Davini, E. Dekker, F. Doblas-Reyes, D. Docquier, P. Echevarria, U. Fladrich, R. Fuentes-Franco, M. Gröger, J. v. Hardenberg, J. Hieronymus, P. Karami, J.-P. Keskinen, T. Koenigk, R. Makkonen, F. Massonnet, M. Ménégoz, P. Miller, E. Moreno-Chamarro, L. Nieradzik, T.

- van Noije, P. Nolan, D. O'Donnell, P. Ollinaho, G. van den Oord, O. Tintó Prims, A. Ramos, T. Reerink, C. Rousset, Y. Ruprich-Robert, P. Le Sager, T. Schmith, T. Tian, E. Tourigny, **P. Uotila**, M. Vancoppenolle, S. Wang, D. Wørlind, U. Willén, K. Wyser, S. Yang, and X. Yepes-Arbós, The EC-Earth3 Earth System Model for the Climate Model Intercomparison Project 6, *Geoscientific Model Development*, Geosci. Model Dev. [preprint], doi:10.5194/gmd-15-2973-2022, 2022.
10. Eldevik, T., Beckers, J.-M., Hansen, B., **Uotila, P.**, Duplessy, J.-C., Deshayes, J., Visbeck, M., Dias, F., McCarthy, G., van Sebille, E., Smedsrud, L. H., Balino, B., Asbjornsen, H., Cabral, H., Estrada Miyare, M., Anderson, L. G., Palmer, T. N., Walloe, L. and Norton, M., *A sea of change: Europe's future in the Atlantic realm, EASAC Secretariat, Deutsche Akademie der Naturforscher Leopoldina. 45 p. (EASAC policy report; no. 42)*, ISBN 978-3-8047-4262-8, 2021.
 11. Guseva, S., Aurela, M., Cortés, A., Kivi, R., E. Lotsari, S. MacIntyre, I. Mammarella, A. Ojala, V. Stepanenko, **P. Uotila**, A. Vähä, T. Vesala, M. B. Wallin, A. Lorke, Variable physical drivers of near-surface turbulence in a regulated river. *Water Resources Research*, 57, e2020WR027939, doi:10.1029/2020WR027939, 2021.
 12. Vigoroux, G., E. Kari, J. Beltran-Abauza, **P. Uotila**, D. Yuan, G. Destouni, Trend correlations for coastal eutrophication and its main local and whole-sea drivers application to the Baltic Sea, *Science of the Total Environment*, 779, doi:10.1016/j.scitotenv.2021.146367, 2021.
 13. Wang, X., Z. Zhang, X. Wang, T. Vihma, M. Zhou, L. Yu, **P. Uotila**, and D. V. Sein, Impacts of strong wind events on sea ice and water masses in Antarctic coastal polynyas, *Clim. Dyn.*, 3505–3528, doi:10.1007/s00382-021-05878-7, 2021.
 14. Leppäranta M., Meleshko V.P., **Uotila P.** and Pavlova T. Sea Ice Modelling. In: Johannessen O., Bobylev L., Shalina E., Sandven S. (eds) *Sea Ice in the Arctic*. Springer Polar Sciences. Springer, Cham, doi:10.1007/978-3-030-21301-5_8 (book chapter), 2020.
 15. Yan, Y., W. Gu and **P. Uotila**, Interannual and seasonal variability in reconstructed daily sea ice area over the Bohai Sea, 1958–2015, *Science of the Total Environment*, 709, doi:10.1016/j.scitotenv.2019.136164, 2020.
 16. Wickström, S., M. O. Jonassen, T. Vihma, **P. Uotila**, Trends in cyclones in the high latitude North Atlantic during 1979–2016, *Quart. J. Royal Met. Soc.*, doi:10.1002/qj.3707, 2019.
 17. Jonassen, M. O., I. Välisuo, T. Vihma, **P. Uotila**, A. P. Makshtas, and J. Launiainen, Assessment of Atmospheric Reanalyses with Independent Observations in the Weddell Sea, the Antarctic, *J Geophys. Res.*, doi:10.1029/2019JD030897, 2019.
 18. Nygård, T., R. G. Graversen, **P. Uotila**, T. Naakka and T. Vihma, Strong dependence of wintertime Arctic moisture and cloud distributions on atmospheric large-scale circulation, *J. Climate*, doi:10.1175/JCLI-D-19-0242.1, accepted, 2019.
 19. Fox-Kemper, B., A. Adcroft, A., C. W. Böning, E. P. Chassignet, E. Curchitser, G. Danabasoglu, C. Eden, M. H. England, R. Gerdes, R. J. Greatbach, S. M. Griffies, R. W. Hallberg, E. Hanert, P. Heimbach, H. T. Hewitt, C. H. Hill, Y. Komuro, S. Legg, J. Le Sommer, S. Masina, S. J. Marsland, S. G. Penny, F. Qiao, T. D. Ringler, A. M. Trequier, H. Tsujino, **P. Uotila** and S. G. Yeager, Challenges and Prospects in Ocean Circulation Models, *Front. Mar. Sci.*, doi:10.3389/fmars.2019.00065, 2019.
 20. Tyrrell, N., A. Karpechko, **P. Uotila** and T. Vihma, Atmospheric Circulation Response to Anomalous Siberian Forcing in October 2016 and its Long-Range Predictability, *Geophys. Res. Lett.*, doi:10.1029/2018GL081580, 2019.

21. Kämäräinen, M., **P. Uotila**, A. Yu. Karpechko, O. Hyvärinen, I. Lehtonen and J. Räisänen, A new statistical forecasting method for seasonal temperatures in Europe, *J. Climate*, doi:10.1175/JCLI-D-18-0765.1, 2019.
22. Vihma, T., H. Björnsson, L. Chen, K. Dethloff, J. Francis, R. Graversen, R. Hall, D. Handorf, E. Hanna, A. Karpechko, J. Overland, N. Skific, N. Tyrrell and **P. Uotila**, Effects of the tropospheric large-scale circulation on European winter temperatures during the period of amplified Arctic warming, *Int. J. Climatol.*, doi:10.1002/joc.6225, 2019.
23. Nordling, K., H. Korhonen, P. Räisänen, E. Alper, **P. Uotila**, D. O'Donnell and J. Merikanto, Role of climate model dynamics in estimated climate responses to anthropogenic aerosols, *Atmos. Chem. Phys.*, doi:10.5194/acp-2018-1335, 2019.
24. Vihma, T., **P. Uotila**, S. Sandven, D. Pozdnyakov, A. Makshtas, A. Pelyasov, R. Pirazzini, F. Danielsen, S. Chalov, H. Lappalainen, V. Ivanov, I. Frolov, A. Albin, B. Cheng, S. Dobrolyubov, V. Arkhipkin, S. Myslenkov, T. Petäjä, and M. Kulmala, Towards the marine Arctic component of the Pan-Eurasian Experiment, *Atmos. Chem. Phys. Special issue: Pan-Eurasian Experiment (PEEX)*, doi:10.5194/acp-19-1941-201, 2019.
25. **Uotila, P.**, H. Goosse, K. Haines, M. Chevallier, A. Barthélemy, C. Bricaud, J. Carton, N. Fučkar, G. Garric, D. Iovino, F. Kauker, M. Korhonen, V. S. Lien, M. Marnela, F. Massonnet, D. Mignac, K. A. Peterson, R. Sadikni, L. Shi, S. Tietsche, T. Toyoda, J. Xie, Z. Zhang, An assessment of ten ocean reanalyses in the polar regions, *Clim. Dyn.*, doi:10.1007/s00382-018-4242-z, 2018.
26. 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 H., Bäck J., Arshinov M., Mahura A., Arnold S., Vihma T., **Uotila P.**, de Leeuw G., Kukkonen I., Malkhazova S., Tynkkynen V., Fedorova I., Hansson H.C., Dobrolyubov S., Melnikov V., Matvienko G., Baklanov A., Viisanen Y., Kasimov N., Guo H., Bondur V., Zilitinkevich S., Kulmala M., Pan-Eurasian Experiment (PEEX) Program: An overview of the first 5 years in operation and future prospects, *Geography, Environment, Sustainability*, 11(1):6-19, doi:10.24057/2071-9388-2018-11-1-6-19, 2018.
27. Zhang, Z., **P. Uotila**, A. Stössel, T. Vihma, H. Liu, and Y. Zhong, Seasonal southern hemisphere multi-variable reflection of the southern annular mode in atmosphere and ocean reanalyses, *Clim. Dyn.*, doi:10.1007/s00382-017-3698-6, 2018.
28. Benestad, R., Sillmann, J., Thorarinsdottir, T. L., Guttorp, P., d. S. Mesquita, M., Tye, M. R., **Uotila, P.**, Fox Maule, C., Thejll, P., Drews, M., and Parding, K., New vigour involving statisticians to overcome ensemble fatigue, *Nature Climate Change*, 7(10), 697–703, doi:10.1038/nclimate3393, 2017.
29. Bennetts, L. G., O'Farrell, S., and **Uotila, P.**, Brief communication: Impacts of ocean-wave-induced breakup of Antarctic sea ice via thermodynamics in a stand-alone version of the CICE sea-ice model, *The Cryosphere*, 11, 1035-1040, doi:10.5194/tc-11-1035-2017, 2017.
30. Gibson, P., S. Perkins-Kirkpatrick, **P. Uotila**, A. Pepler, L. Alexander, On the use of self-organizing maps for studying climate extremes, *J Geophys. Res.*, doi:10.1002/2016JD026256, 2017.
31. **Uotila, P.**, Iovino, D., Vancoppenolle, M., Lensu, M., and Rousset, C., Comparing sea ice, hydrography and circulation between NEMO3.6 LIM3 and LIM2, *Geosci. Model Dev.*, 10, 1009–1031, doi:10.5194/gmd-10-1009-2017, 2017.
32. Griffies, S. M., Danabasoglu, G., Durack, P. J., Adcroft, A. J., Balaji, V., Böning, C. W., Chassignet, E. P., Curchitser, E., Deshayes, J., Drange, H., Fox-Kemper, B., Gleckler, P. J., Gregory, J. M., Haak, H., Hallberg, R. W., Hewitt, H. T., Holland, D. M., Ilyina, T., Jungclaus,

- J. H., Komuro, Y., Krasting, J. P., Large, W. G., Marsland, S. J., Masina, S., McDougall, T. J., Nurser, A. J. G., Orr, J. C., Pirani, A., Qiao, F., Stouffer, R. J., Taylor, K. E., Treguier, A. M., Tsujino, H., **Uotila**, P., Valdivieso, M., Winton, M., and Yeager, S. G.: Experimental and diagnostic protocol for the physical component of the CMIP6 Ocean Model Intercomparison Project (OMIP), *Geosci. Model Dev.*, doi:10.5194/gmd-2016-77, 2016.
33. Wei, L., T. Qin, P. **Uotila**, T. Vihma, B. Cheng, Analyses of summer cyclone activities over the Arctic Ocean, *ISOPE Brief Transactions, Proceedings of the Twenty-sixth (2016) International Ocean and Polar Engineering Conference*, ISSN 1098-6189, 1158–1162, 2016.
34. Lecomte, O., H. Goosse, T. Fichelet, P.R. Holland, P. **Uotila**, V. Zunz and N. Kimura, Contribution of surface wind biases to the wrong Antarctic sea ice concentration budget in climate models, *Ocean Modelling*, doi:10.1016/j.ocemod.2016.08.001, 2016.
35. Gibson, P., P. **Uotila**, S. E. Perkins, L. V. Alexander and A. J. Pitman, Evaluating synoptic systems in the CMIP5 climate models over the Australian region, *Climate Dynamics*, 47, 2235–2251, doi:10.1007/s00382-015-2961-y, 2016.
36. Pezza, A., K. Sadler, P. **Uotila**, T. Vihma, M. Mesquita and P. Reid, Southern Hemisphere Polar Lows and explosive Cyclones in high resolution datasets, *Climate Dynamics*, published online 10 December 2015, doi:10.1007/s00382-015-2925-2, 2016.
37. Danabasoglu, G., S. G. Yeager, D. Bailey, E. Behrens, M. Bentsen, D. Bi, A. Biastoch, C. Böning, A. Bozec, C. Cassou, E. Chassignet, S. Danilov, N. Diansky, H. Drange, R. Farneti, E. Fernandez, P. G. Fogli, G. Forget, A. Gusev, P. Heimbach, A. Howard, S. M. Griffies, M. Kelley, W. G. Large, A. Leboissetier, J. Lu, E. Maisonnave, S. J. Marsland, S. Masina, A. Navarra, A. J. George Nurser, D. S. y Méliá, B. L. Samuels, M. Scheinert, D. Sidorenko, L. Terray, A.-M. Treguier, H. Tsujino, P. **Uotila**, S. Valcke, A. Voldoire, and Q. Wang, North Atlantic Simulations in Coordinated Ocean-ice Reference Experiments phase II (CORE-II). Part II: Variability, *Ocean Modelling*, 97, 65–90, <http://dx.doi.org/10.1016/j.ocemod.2015.11.007>, 2016.
38. **Uotila**, P., T. Vihma and J. Haapala, Atmospheric and oceanic conditions and the extremely mild Baltic Sea ice winter 2014/15, *Geophys. Res. Lett.*, doi:10.1002/2015GL064901, 2015.
39. Farneti, R., P. **Uotila** and others, An assessment of Antarctic Circumpolar Current and Southern Ocean Meridional Overturning Circulation sensitivity during 1958–2007 in a suite of inter-annual CORE-II simulations, *Ocean Modelling*, 93, 84–120, doi:10.1016/j.ocemod.2015.07.009, 2015.
40. Zhang, Z., A. Stössel, T. Vihma, and P. **Uotila**, The Role of Wind Forcing from Operational Analyses for the Model Representation of Antarctic Coastal Sea Ice, *Ocean Modelling*, 94, 95–111, doi:10.1016/j.ocemod.2015.07.019, 2015.
41. Downes, S.M., R. Farneti, P. **Uotila**, S.J. Marsland, S.M. Griffies, and all associated modellers, The evolution of Southern Ocean water masses in Coordinated Ocean-ice Reference Experiments phase II (CORE-II), *Ocean Modelling*, 94, 67–94, doi:10.1016/j.ocemod.2015.07.022, 2015.
42. Bennetts, L., S. O’Farrell, P. **Uotila**, and V. Squire, An idealised wave-ice interaction model without subgrid spatial and temporal discretisations, *Annals Glaciol.*, 56(69), doi:10.3189/2015AoG69A599, 2015.
43. Beringer, J., L. Hutley, D. Abramson, S. Arndt, M. Bristow, P. Canadell, L. Cernusak, D. Eamus, B. Evans, K. Görngen, S. Grover, J. Hacker, V. Haverd, D. Hocking, P. Isaac, K. Kanniah, S. Livesley, A. Lynch, S. Maier, C. Moore, M. Northwood, M. Raupach, J. Russell-Smith, N. Tapper, P. **Uotila**, C. Wendt, Fire in Australian Savannas: from leaf to landscape, *Global Change Biology*, 21(1), 62–81, doi:10.1111/gcb.12686, 2015.

44. Bennetts, L., S. O. O'Farrell, **P. Uotila**, and V. Squire, Towards a model of the marginal ice zone for use in climate, *Proceedings of 22nd IAHR International Symposium on Ice*, doi:10.3850/978-981-09-0750-1_1200, 2014.
45. Vihma, T., B. Cheng, and **Uotila**, P., Linkages between Arctic sea ice cover, large-scale atmospheric circulation, and weather and ice conditions in the Gulf of Bothnia, Baltic Sea, *Advances in Polar Science*, 25(4), 289–299, doi: 10.13679/j.advps.2014.4.00289, 2014.
46. **Uotila**, P., A. Karpechko, and T. Vihma, Links between the Arctic sea ice and climate extremes in China: an alternative view, *Advances in Polar Science*, 25(4), 222–244, doi: 10.13679/j.advps.2014.4.00222, 2014.
47. **Uotila**, P., P.R. Holland, T. Vihma, S.J. Marsland, and N. Kimura, Is realistic Antarctic sea ice extent in climate models the result of excessive ice drift?, *Ocean Modelling*, doi:10.1016/j.ocemod.2014.04.004, 2014.
48. Purich, A., T. Cowan, W. Cai, P. van Rensch, **P. Uotila**, A. Pezza, G. Boshcat, and S. Perkins, Atmospheric and oceanic conditions associated with southern Australian heat waves: a CMIP5 analysis, *J. Climate*, 27, 7807–7829, doi:10.1175/JCLI-D-14-00098.1, 2014.
49. Griffies, S.M., J. Yin, P.J. Durack, P. Goddard, S.C. Bates, E. Behrens, M. Bentsen, D. Bi, A. Biastoch, C. Böning, A. Bozec, E. Chassignet, G. Danabasoglu, S. Danilov, C. Domingues, H. Drange, R. Farneti, E. Fernandez, R.J. Greatbatch, D.M. Holland, M. Ilicak, J. Lu, S.J. Marsland, A. Mishra, K. Lorbacher, A. J. G. Nurser, D. Salas y Mélia, J.B. Palter, B.L. Samuels, J. Schröter, F.U. Schwarzkopf, D. Sidorenko, A. M. Treguier, Y. Tseng, H. Tsujino, **P. Uotila**, S. Valcke, A. Voldoire, Q. Wang, M. Winton, X. Zhang, An assessment of global and regional sea level for years 1993–2007 in a suite of interannual CORE-II simulations, *Ocean Modelling*, doi:10.1016/j.ocemod.2014.03.004, 2014.
50. Danabasoglu, G., S. G. Yeager, D. Bailey, E. Behrens, M. Bentsen, D. Bi, A. Biastoch, C. Böning, A. Bozec, C. Cassou, E. Chassignet, S. Danilov, N. Diansky, H. Drange, R. Farneti, E. Fernandez, P. G. Fogli, G. Forget, A. Gusev, P. Heimbach, A. Howard, S. M. Griffies, M. Kelley, W. G. Large, A. Leboissetier, J. Lu, E. Maisonnave, S. J. Marsland, S. Masina, A. Navarra, A. J. George Nurser, D. S. y Mélia, B. L. Samuels, M. Scheinert, D. Sidorenko, L. Terray, A.-M. Treguier, H. Tsujino, **P. Uotila**, S. Valcke, A. Voldoire, and Q. Wang, North Atlantic Simulations in Coordinated Ocean-ice Reference Experiments phase II (CORE-II). Part I: Mean States, *Ocean Modelling*, 73, 76–107, doi:10.1016/j.ocemod.2013.10.005, 2014.
51. **Uotila**, P., T. Vihma and M. Tsukernik, Close interactions between the Antarctic cyclone budget and large-scale atmospheric circulation, *Geophys. Res. Lett.*, 40, 1–5, doi:10.1002/grl.50560, 2013.
52. **Uotila**, P., O'Farrell, S., Marsland, S.J., and Bi, D., The sea-ice performance of the Australian climate models participating in the CMIP5, *Australian Meteorological and Oceanographic Journal*, 121–143, 2013.
53. Bi, D., Dix, M., Marsland, S.J., O'Farrell, S., Rashid., H., **Uotila**, P., Hirst, A., Kowalczyk, E., Colebiewski, M., Sullivan, A., Hailin, Y., Hannah, N., Franklin, C., Sun, Z., Vohralik, P., Watterson, I., Zhou, X., Fiedler, R., Collier, M., Ma, Y., Noonan, J., Stevens, L., Uhe, P., Zhu, H., Hill, R., Harris, C., Griffies, S. and Puri K., The ACCESS Coupled Model: Description, Control Climate and Preliminary Validation, *Australian Meteorological and Oceanographic Journal*, 41–64, 2013.
54. Bi, D., Marsland, S.J., **Uotila**, P., O'Farrell, S., Fiedler, R., Sullivan, A., Griffies, S.M., Zhou, X., and Hirst, A.C., ACCESS-OM: the Ocean and Sea Ice Core of the ACCESS Coupled Model, *Australian Meteorological and Oceanographic Journal*, 213–232, 2013.

55. Marsland, S.J., Bi, D., **Uotila**, J.P., Fiedler, R., Griffies, S.M., Lorbacher, K., O'Farrell, S., Sullivan, A., Uhe, P., Zhou, Z., and Hirst, A.C., Evaluation of ACCESS Climate Model ocean diagnostics in CMIP5 simulations, *Australian Meteorological and Oceanographic Journal*, 101–119, 2013.
56. Dix, M., Vohralik, P., Bi, D., Rashid, H., Marsland, S.J., O'Farrell, S., **Uotila**, P., Hirst, A.C., Kowalczyk, E., Sullivan, A., Yan, H., Franklin, C., Sun, Z., Watterson, I., Collier, M., Noonan, J., Rotstayn, L., Stevens, L., Uhe, P., and Puri, K., The ACCESS Coupled Model Documentation of core CMIP5 simulations and initial results, *Australian Meteorological and Oceanographic Journal*, 83–99, 2013.
57. **Uotila**, P., O'Farrell, S., Marsland, S.J. and Bi, D., A sea-ice sensitivity study with a global ocean-ice model, *Ocean Modelling*, 51, 1–18, doi:10.1016/j.ocemod.2012.04.002, 2012.
58. Vihma, T., Tisler, P., and **Uotila**, J.P., Atmospheric forcing on the drift of Arctic sea ice in 1989–2009, *Geophys. Res. Lett.*, 39, 2, doi:10.1029/2011GL050118, 2012.
59. **Uotila**, P., Vihma, T., Pezza, A.B., Simmonds, I., Keay, K., and Lynch, A.H., Relationships between Antarctic cyclones and surface conditions as derived from high resolution NWP data, *J. Geophys. Res.*, 116, D07109, doi:10.1029/2010JD015358, 2011
60. Pearce, J. L., Beringer, J., Nicholls, N., Hyndman, R.J., **Uotila**, P., and Tapper, N.J., Investigating the influence of synoptic-scale meteorology on air quality using self-organizing maps and generalized additive modelling. *Atmospheric Environment*, 45(1), 128–136., doi:10.1016/j.atmosenv.2010.09.032, 2011.
61. Nicholls, N., **Uotila**, P. and Alexander, L.V., Synoptic influences on seasonal, inter-annual, and decadal temperature variations in Melbourne, Australia, *Int. J. of Climatol.*, 30, 1372–1381, 10.1002/joc.1965, 2010.
62. Alexander, L. V., **Uotila**, P., Nicholls, N., and Lynch, A., A New Daily Pressure Dataset for Australia and Its Application to the Assessment of Changes in Synoptic Patterns during the Last Century, *J. Climate*, 23(5), 1111–1126. <https://doi.org/10.1175/2009JCLI2972.1>, 2010.
63. **Uotila**, P., Pezza, A.B., Cassano, J.J., Keay, K., and Lynch, A.H., A comparison of low pressure system statistics derived from a high-resolution NWP output and three reanalysis products over the Southern Ocean, *J. Geophys. Res.*, 114, D17105, doi:10.1029/2008JD011583, 2009.
64. Alexander, L.V., **Uotila**, P., and Nicholls, N., Influence of sea surface temperature variability on global temperature and precipitation extremes, *J. Geophys. Res.*, 114, D18116, doi:10.1029/2009JD012301, 2009.
65. Visser, G., Dowe, D.L., and **Uotila**, P., Enhancing MML Clustering using Context Data with Climate Applications. In proceedings of *AI 2009: Advances in Artificial Intelligence, Lecturer Notes in Computer Science*, 350–359, 2009.
66. Pettit, C.J., Bishop, I.D., Borda, A., **Uotila**, P., Sposito, V.J., Raybould, L., Russel, A.B.M., An e-Science Approach to Climate Change Adaptation. In proceedings of *Spatial Sciences Institute Biennial International Conference (SSC 2009): Place & Purpose Symposia*, Adelaide, South Australia, 28 September–2 October, 1123–1134, 2009.
67. Finnis, J., Cassano, J., Holland, M., Serreze, M., and **Uotila**, P., Synoptically Forced Hydroclimatology of Major Arctic Watersheds in General Circulation Models, Part 2: Eurasian Watersheds, *Int. J. of Climatol.*, doi:10.1002/joc.1753, 2009.
68. Finnis, J., Cassano, J., Holland, M., Serreze, M., and **Uotila**, P., Synoptically Forced Hydroclimatology of Major Arctic Watersheds in General Circulation Models, Part 1: the Mackenzie River Basin, *Int. J. of Climatol.*, doi:10.1002/joc.1769, 2009.

69. Lynch, A.H., Lestak, L.R., **Uotila**, P., Cassano, E.N., Xie, L., A factorial analysis of storm surge flooding in Barrow, Alaska, *Monthly Weather Review*, 136, 898–912, 2008.
70. Lynch, A.H., Abramson, D., Gørgen, K., Beringer, J., and **Uotila**, P., Savanna fires increase monsoon rainfall as simulated using a distributed computing environment, *Geophys. Res. Lett.*, 34, L20801, 4 pages, doi:10.1029/2007GL030879, 2007.
71. Cassano, J.J., **Uotila**, P., Lynch, A.H. and Cassano, E.N., Predicted Changes in Synoptic Forcing of Net Precipitation in Large Arctic River Basins During the 21st Century, *J. Geophys. Res.* 112, G04S49, 20 pages, doi:10.1029/2006JG000332, 2007.
72. **Uotila**, P., Lynch, A.H., Cassano, J.J., Cullather, R.I., Changes in Antarctic net precipitation in the 21st century based on Intergovernmental Panel on Climate Change (IPCC) model scenarios. *J. Geophys. Res.*, 112, 19 pages, D10107, DOI:10.1029/2006JD007482, 2007.
73. Lynch, A.H., **Uotila**, P., Cassano, J.J., Changes in synoptic weather patterns in the polar regions in the 20th and 21st centuries, Part 2: Antarctic. *Int. J. of Climatol.*, 26 (9), 1181–1199, 2006.
74. Cassano, J.J., **Uotila**, J.P., Lynch, A.H., Changes in synoptic weather patterns in the polar regions in the 20th and 21st centuries, Part 1: Arctic. *Int. J. of Climatol.*, 26(8), 1027–1049, 2006.
75. **Uotila**, P., Holland, D.M., Morales Maqueda, M.A., Häkkinen, S., Holloway, G., Karcher, M., Kauker, F., Steele, M., Yakovlev, N., Zhang, J., and Proshutinsky, A., An energy-diagnostics intercomparison of arctic ice-ocean models, *Ocean Modelling*, 11, 1–27, doi:10.1016/j.ocemod.2004.11.003., 2006.
76. Vihma, T., **Uotila**, J.P., Cheng, B., and Launiainen, J., Surface Heat Budget Over the Weddell Sea: Buoy Results and Comparisons with Large-Scale Models. *J. Geophys. Res.*, 5, 5-1 – 5-15, 2002.
77. **Uotila**, J.P., Observed and modelled sea-ice drift response to wind forcing in the northern Baltic Sea. *Tellus*, 53A, 112–128, 2001.
78. Launiainen, J., Cheng, B., **Uotila**, J.P., and Vihma, T. Turbulent surface fluxes and air-ice coupling in the Baltic-Air-Sea-Ice-Study (BASIS), *Annales Glaciology*, 33, 237–242, 2001.
79. Cheng, B., Launiainen, J., Vihma, T., and **Uotila**, J.P. Modelling sea ice thermodynamics on BALTEX-BASIS, *Annales Glaciology*, 33, 243–247, 2001.
80. **Uotila**, J.P., Vihma, T., and Launiainen J., Response of the Weddell Sea pack ice to wind forcing. *J. Geophys. Res.*, 105, 1135–1151, 2000.
81. Vihma, T., J.P. **Uotila**, and J. Launiainen, Air-sea interaction over a thermal marine front in the Denmark Strait. *J. Geophys. Res.*, 103, 27665–27678, 1998.
82. **Uotila**, J.P., Launiainen, J. and Vihma, T. An analysis of buoy drift in the northern North Atlantic with detection of drogue loss events. *Atmosphere-Ocean*, 35, 471–494, 1997.
83. Vihma, T., Launiainen, J., and **Uotila** J.P. Weddell Sea ice drift: Kinematics and wind forcing. *J. Geophys. Res.*, 101, 18,279–18, 296, 1996.
84. **Uotila**, J.P., Launiainen, J. and Vihma, T. Analysis of the surface drift currents in the Bothnian Sea. *Geophysica*, 31, 37–49, 1995.