

Publications by Michael Tjernström

Ph.D. Thesis:

M. Tjernström (MT), 1988: Numerical modeling of stratiform boundary-layer clouds on the meso- γ -scale. *Acta Universitatis Upsaliensis*, Comprehensive Summaries of Uppsala Dissertations from the Faculty of Science, ISBN 91-554-2147-4, Uppsala, Sweden

Thesis advisors: Prof. Ulf Högström and Associate Prof. Leif Enger, Uppsala University, Sweden.

Original papers in peer-reviewed journals:

Included in the thesis: 1987 - 1989

- 1 MT, 1987: A study of flow over complex terrain using a three dimensional model. A preliminary model evaluation focusing on stratus and fog. *Annales Geophysicae*, **5B**, (5), 469-486.
- 2 MT, 1988: Numerical simulations of stratiform boundary layer clouds on the meso- γ -scale. Part 1: The influence of terrain height differences. *Boundary-Layer Meteorology*, **44**, 33-72.
- 3 MT, 1988: Numerical simulations of stratiform boundary layer clouds on the meso- γ -scale. Part 2: The influence of a step change in surface roughness and surface temperature. *Boundary-Layer Meteorology*, **44**, 207 - 230.
- 4 MT, 1989: Some tests with a surface energy balance scheme, including a bulk parameterization for vegetation, in a mesoscale model. *Boundary-Layer Meteorology*, **48**, 33 - 68.

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- 14 MT and P. Samuelsson, 1995: The effect of inertial navigation system time response on airborne turbulence measurements. *Journal of Atmospheric and Oceanic Technology*, **12**, 1196-1213.
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- 18 Grisogono, B., and MT, 1996: Thermal mesoscale circulations on the Baltic coast: Part II: Perturbation of surface parameters. *Journal of Geophysical Research*, **101**, 18999-19012.

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- 141 G. Canut, I.M. Brooks, P.O.G. Persson, M. Shupe, MT, J. Sedlar, and C.E. Birch, 2011: Boundary layer structure during ASCOS – Multi-sensor retrievals and diagnostics. American Meteorological Society's 11th Conference on Polar Meteorology and Oceanography, 5-10 May 2011 in Boston, Massachusetts.
- 142 C.E. Birch, I.M. Brooks, P. Earnshaw, C. Leck, A. Lock, T. Mauritsen, S.F. Milton, P.O.G. Persson, J. Sedlar, M. Shupe, and MT, 2011: Modelling the vertical structure of the central Arctic boundary layer : ASCOS case studies. American Meteorological Society's 11th Conference on Polar Meteorology and Oceanography, 5-10 May 2011 in Boston, Massachusetts.
- 143 M. Shupe, P.O.G. Persson, A. Solomon, I.M. Brooks, T. Mauritsen, J. Sedlar, and MT, 2011: Dynamical and microphysical characteristics and interactions in Arctic mixed-phase clouds. American Meteorological Society's 11th Conference on Polar Meteorology and Oceanography, 5-10 May 2011 in Boston, Massachusetts.
- 144 I.M. Brooks, A. Held, C. Leck, MT, S.J. Norris, G. de Leeuw, A. Sirevaag, C.E. Birch, and B.J. Brooks, 2011: Linking the Arctic Ocean and clouds - bubble and aerosol flux measurements from ASCOS. American Meteorological Society's 11th Conference on Polar Meteorology and Oceanography, 5-10 May 2011 in Boston, Massachusetts.
- 145 MT, T. Mauritsen, M. Shupe, J. Sedlar, and I.M. Brooks , 2011: Boundary-layer and aerosol/cloud interaction in central Arctic summer observed during ASCOS. American Meteorological Society's 11th Conference on Polar Meteorology and Oceanography, 5-10 May 2011 in Boston, Massachusetts.
- 146 Birch, C. E., I. M. Brooks, P. Earnshaw, C. Leck, A. Lock, T. Mauritsen, S. F. Milton, P. O. G. Persson, J. Sedlar, M. Shupe, and MT, 2011: Modelling the vertical structure of the central Arctic boundary layer: ASCOS case studies, IUGG Conference, 28 June – 7 July, Melbourne, Australia
- 147 A. Devasthale and MT, 2011: The vertical structure of the Essential Climate Variables (ECVs) over the Arctic observed by A-Train. International Arctic Science Committee's Atmospheric Working Group Workshop, 26-27 September, 2011, Potsdam, Germany.
- 148 Brooks, I.M., P.O.G. Persson, M. Shupe, MT, C. Birch, T. Mauritsen, J. Sedlar, G. Canut, B.J. Brooks, C. Leck, 2011: Arctic (ASCOS) boundary layer measurements and model representation. International Arctic Science Committee's Atmospheric Working Group Workshop, 26-27 September, 2011, Potsdam, Germany.
- 149 MT, I. M. Brooks, P.O.G. Persson, M. Shupe, C. Birch, T. Mauritsen, J. Sedlar, 2011: Arctic cloud and boundary layer processes in observations (and modelling). International Arctic Science Committee's Atmospheric Working Group Workshop, 26-27 September, 2011, Potsdam, Germany.
- 150 Brooks, I. M., A. Held, C. Leck, MT, S. J. Norris, G. de Leeuw, A. Sirevaag, C. E. Birch, B. J. Brooks, 2011: Bubble and aerosol fluxes in and over leads in Arctic sea ice: results from ASCOS. *UK Arctic Science Conference, 14-16 Sept. Leeds, UK.*
- 151 Pleavin, T. D., I. M. Brooks, J. S. Dobbie, M. Shupe, P. O. G. Persson, MT, B. J. Brooks, 2011: Large Eddy Simulations of Arctic Stratus: ASCOS case studies. *UK Arctic Science Conference, 14-16 Sept. Leeds, UK.*
- 152 Birch, C. E., I. M. Brooks, P. Earnshaw, C. Leck, A. Lock, T. Mauritsen, S. F. Milton, P. O. G. Persson, J. Sedlar, M. Shupe, and MT, 2011: Modelling the vertical structure of the central Arctic boundary layer: ASCOS case studies. *UK Arctic Science Conference, 14-16 Sept. Leeds, UK.*
- 153 Canut, G., I. M. Brooks, P. O. G. Persson, M. Shupe, MT, T. Mauritsen, J. Sedlar, and C. E. Birch, 2011: Boundary layer structure during ASCOS – Multi-sensor retrievals and diagnostics. *UK Arctic Science Conference, 14-16 Sept. Leeds, UK.*
- 154 MT, 2011: The Arctic boundary layer - Interactions with the surface, and clouds, as learned from observations (and some modeling), (Invited). European Centre for Medium Range Weather Forecast (ECMWF) and Gewex Atmospheric Boundary Layer Study (GABLS) Joint workshop on stable boundary layers and surface interaction, 7-12 November, 2011, Reading, UK.
- 155 Stramler, K., J. Sedlar and MT, 2011: CMIP5 models in the Arctic: Evaluating near-term processes and distribution shifts in a changing climate. American Geophysical Union Fall Meeting, 12-16 December, 2011, San Francisco, California.
- 156 Syed, F. S., H. Körnich, MT, 2012: On the fog variability over South Asia, European Geophysical Union, 22-27 April, 2012, Vienna, Austria.
- 157 Pleavin, T. D., I. M. Brooks, J. S. Dobbie, M. D. Shupe, MT, P. O. G. Persson, B. J. Brooks, 2012: A large eddy simulation study of Arctic boundary-layer cloud during ASCOS, AMS 20th Conference on Boundary Layers and Turbulence, 8-13 July, Boston, USA.
- 158 Canut, G., I. M. Brooks, M. D. Shupe, P. O. G. Persson, MT, J. Sedlar, T. Mauritsen, C. E. Birch, B. J. Brooks, 2012: Turbulence structure of the central Arctic boundary layer, AMS 20th Conference on Boundary Layers and Turbulence, 8-13 July, Boston, USA.

- 159 MT, 2012: The Arctic Ocean Atmospheric boundary layer (keynote), WCRP & WWRP Joint Workshop on Physics in Weather and Climate Models, 20-23 March, 2012, California Institute of Technology, Pasadena, California, USA.
- 160 MT, M. Kapsch, T. Mauritsen, R. G. Graverson, J. Sedlar and M. Shupe, 2012: The Role of Longwave Radiation for Arctic Sea Ice. American Geophysical Union Fall Meeting, 10-14 December, 2012, San Francisco, California.
- 161 Wesslén, C., MT, D. H. Bromwich, S. H. Wang, L. S. Bai, G. de Boer, 2013: Evaluating central Arctic summer conditions in the Arctic System Reanalysis (ASR) and ERA-Interim using Arctic-Summer Cloud-Ocean-Study (ASCOS) data. European Geoscience Union, 8-12 April, 2013, Vienna, Austria.
- 162 Salih, A.S.M., Zhang, Q. and MT, 2013: Lagrangian tracing of Sahelian Sudan moisture sources. European Geoscience Union, 8-12 April, 2013, Vienna, Austria.
- 163 Dethloff, K., MT, M. Shupe, P. O. G. Persson, 2013: Multidisciplinary drifting Observatory for the Study of Arctic Climate – MOSAiC. Arctic Science Summit Week, 16-19 April, 2013, Krakow, Poland.
- 164 Vihma, T., C. Lüpkes, T. Nygård, I. Renfrew, J. Sedlar, MT, 2013: Recent advances in understanding and parameterization of small-scale physical processes in the Arctic atmosphere. Arctic Science Summit Week, 16-19 April, 2013, Krakow, Poland.
- 165 Wesslén, C., MT, D. H. Bromwich, S. H. Wang, L. S. Bai, G. de Boer, 2013: Evaluating central Arctic summer conditions in the Arctic System Reanalysis (ASR) and ERA-Interim using Arctic-Summer Cloud-Ocean-Study (ASCOS) data. Arctic Science Summit Week, 16-19 April, 2013, Krakow, Poland.
- 166 MT, 2013: Why modelers should care about field projects (invited), ECMWF & WWRP Joint Workshop on Polar Prediction, 24-27 June 2013 at ECMWF, Reading, UK.
- 167 Kapsch, M., R. G. Graverson and MT, 2013: The importance of spring atmospheric conditions for the prediction of summer sea ice extent. American Geophysical Union Fall Meeting, 9-13 December, 2013, San Francisco, California.
- 168 Johansson, E., A. Devasthale, T. L'Ecuyer, A. Ekman and MT, 2014: The cloud radiative heating in the upper troposphere lower stratosphere over the Indian Subcontinent. SPARC conference.
- 169 Sotiropoulou, G., J. Sedlar, MT, M. D. Shupe, I. M. Brooks and P. O. G. Persson, 2014: The thermodynamic structure of summer Arctic stratocumulus and the dynamic coupling to the surface, European Geophysical Union General Assembly, 27 April – 2 May, 2014, Vienna.
- 170 MT, J. Sedlar, I. Brooks, M. Shupe and O. Persson, 2014: Arctic mixed phase summer clouds: Lessons from ASCOS. European Geophysical Union General Assembly, 27 April – 2 May, April 2014, Vienna.
- 171 Jansen, R. A., I. M. Brooks, M. D. Shupe, J. Sedlar, MT, P. O. G. Persson, J. S. Dobbie, 2014: Radiatively driven in-cloud turbulence and cloud-surface coupling in Arctic Stratocumulus, AMS 20th Conference on Boundary Layers and Turbulence, June 9-13, Leeds, UK.
- 172 Salisbury, D., I. M. Brooks, J. Prytherch, B. J. Brooks, J. Sedlar, G. Sotiropoulou, MT, P. O. G. Persson, M. D. Shupe, B. I. Moat, P. Achtert, 2015: Characterizing surface conditions during the Arctic Cloud in Summer Experiment (ACSE), AMS 19th Conference on Air-Sea Interaction, January 4-8, Phoenix, AZ, USA.
- 173 Brooks, I. M., J. Prytherch, D. J. Salisbury, B. J. Brooks, J. Sedlar, G. Sotiropoulou, MT, P. O. G. Persson, M. D. Shupe, P. M. Crill, B. F. Thornton, B. I. Moat, P. Achtert, 2015: Surface Turbulent Exchange over the Arctic Ocean – Measurements from the SWERUS-C3 / ACSE Project, AMS 19th Conference on Air-Sea Interaction, January 4-8, Phoenix, AZ, USA.
- 174 Achtert, P., D. J. Salisbury, J. Prytherch, J. Sedlar, G. Sotiropoulou, MT, B. J. Brooks, I. M. Brooks, M. D. Shupe, P. O. G. Persson, P. Johnston, D. Wolfe, 2015: Observations of the Arctic boundary layer during ACSE 2014, High-Latitude dynamics workshop, Rosendal, 23-27 March, 2015.
- 175 Brooks, I., M., J. Prytherch, D. J. Salisbury, B. J. Brooks, P. Achtert, J. Sedlar, MT, G. Sotiropoulou, P. O. G. Persson, M. D. Shupe, P. Johnston, D. Wolfe, B. I. Moat, 2015: In situ measurements of surface exchange over the Arctic Ocean, High-Latitude dynamics workshop, Rosendal, 23-27 March, 2015.
- 176 Brooks, B. J., P. Achtert, I. M. Brooks, J. Prytherch, D. J. Salisbury, J. Sedlar, MT, G. Sotiropoulou, P. O. G. Persson, M. D. Shupe, P. Johnston, D. Wolfe, 2015: Interactions between Arctic clouds, boundary-layer structure, and surface conditions over the Arctic Ocean, High-Latitude dynamics workshop, Rosendal, 23-27 March, 2015.
- 177 Persson, P. O. G., Matthew D. Shupe, MT, J. Sedlar, I. M. Brooks, B. J. Brooks, G. Björk, J. Prytherch, D. J. Salisbury, P. Achtert, G. Sotiropoulou, P. Johnston, and D. Wolfe, 2015: Atmosphere-Ice-Ocean Interactions During Summer Melt and Early Autumn Freeze-up: Observations from the ACSE Field Program, High-Latitude dynamics workshop, Rosendal, 23-27 March, 2015.

- 178 Prytherch, J., D. J. Salisbury, P. Achtert, J. Sedlar, G. Sotiropoulou, MT, B. J. Brooks, I. M. Brooks, M. D. Shupe, P. O. G. Persson, P. Johnston, D. Wolfe, B. Moat, 2015: Wave state and surface turbulent exchange over low fractional ice cover, High-Latitude dynamics workshop, Rosendal, 23-27 March, 2015.
- 179 Salisbury, D., J. Prytherch, M. C. Tsamados, I. M. Brooks, B. J. Brooks, P. Achtert, J. Sedlar, MT, G. Sotiropoulou, P. O. G. Persson, M. D. Shupe, P. Johnston, D. Wolfe, B. Moat, 2015: Evaluating surface flux parameterizations over Arctic sea ice, High-Latitude dynamics workshop, Rosendal, 23-27 March, 2015.
- 180 Sotiropoulou, G., J. Sedlar, MT, M. D. Shupe, I. M. Brooks and P. O. G. Persson, 2015: The thermodynamic structure of summer Arctic stratocumulus and the dynamic coupling to the surface, High-Latitude dynamics workshop, Rosendal, 23-27 March, 2015.
- 181 MT and coauthors, 2015: The role of clouds in shaping Arctic climate, High-Latitude dynamics workshop, Rosendal, 23-27 March, 2015.
- 182 Vihma, T., J. Screen, MT, X. Zhang, V. Popova, B. Newton, C. Deser, M. Holland, J. Walsh, T. Prowse, 2015: Air moisture, clouds and net precipitation in the Arctic: processes, changes and research challenges, High-Latitude dynamics workshop, Rosendal, 23-27 March, 2015.
- 183 Johansson, E., A. Devasthale, A. Ekman, T. L'Ecuyer, and MT, 2015: The vertical distribution of cloud regimes and their radiative impact under active phases of the Arctic Oscillation, European Geophysical Union General Assembly, 12-17 April 2015, Vienna.
- 184 MT, Matthew Shupe, P. Achtert, B. J. Brooks, I. M. Brooks, P. Johnston, P. O. G. Persson, J. Prytherch, D. Salisbury, J. Sedlar, G. Sotiropoulou, D. Wolfe, 2015: The "blob of death", or how warm air advection causes rapid ice melt, European Geophysical Union General Assembly, 12-17 April 2015, Vienna.
- 185 Persson, P. O. G., B. J. Brooks, MT, J. Sedlar, I. M. Brooks, M. Shupe, G. Björk, J. Prytherch, D. Salisbury, P. Achtert, G. Sotiropoulou, P. Johnston, D. Wolfe, 2015: Atmosphere-Ice-Ocean Interactions During Early Autumn Freeze-up: Boundary-Layer and Surface Observations from the ACSE Field Program, European Geophysical Union General Assembly, 12-17 April 2015, Vienna.
- 186 MT, B. J. Brooks, I. M. Brooks, P. Johnston, P. O. G. Persson, J. Prytherch, D. Salisbury, J. Sedlar (1), M. Shupe, G. Sotiropoulou and D. Wolfe, 2015: Atmospheric observations during the Arctic Clouds in Summer Experiment (ACSE), European Geophysical Union General Assembly, 12-17 April 2015, Vienna.
- 187 MT, M. Shupe, P. Achtert, B. Brooks, I. Brooks, P. Johnston, O. Persson, J. Prytherch, D. Salisbury, J. Sedlar, G. Sotiropoulou, D. Wolfe, 2015: Rapid sea-ice melt due to warm air advection: Observations from the ACSE field program, Arctic Science Summit Week, 27 April – 1 May 2015, Toyama, Japan.
- 188 Brooks I. M., MT, M. D. Shupe, P. O. G. Persson, B. J. Brooks, D. J. Salisbury, P. Achtert, J. Prytherch, J. Sedlar, G. Sotiropoulou, P. E. Johnston, D. Wolfe. 2015: The Arctic Cloud Summer Experiment (ACSE), UK Arctic Science Conference, Sept 16-18, Sheffield, UK
- 189 Geibel, M. C., B. Thornton, J. Prytherch, I. M. Brooks, D. Salisbury, MT, I. Simileto, C.-M. Mörth, C. Humborg, and P. Crill: 2015: Characterization of sea-air methane fluxes around a seafloor gas seep in the central Laptev Sea. American Geophysical Union Fall Meeting, 14-18 December 2015, San Francisco, California, USA.
- 190 Salisbury, D. S, I. M Brooks, J. Prytherch, B. I Moat, O. P. G. Persson, J. Sedlar, G. Sotiropoulou, MT, P. Achtert, B. J. Brooks and M. Shupe: 2015: In situ measurement of the drag coefficient over Arctic sea ice. American Geophysical Union Fall Meeting, 14-18 December 2015, San Francisco, California, USA.
- 191 Achtert, P., G. Sotiropoulou, I. M. Brooks, B. Brooks, P. Johnston, P. O. G. Persson, J. Prytherch, D. Salisbury, J. Sedlar, MT, D. Wolfe, 2015: Observations of the Arctic boundary layer clouds during ACSE 2014, American Geophysical Union Fall Meeting, 14-18 December 2015, San Francisco, California, USA.
- 192 Sotiropoulou, G., J. Sedlar, R. Forbes, and MT, 2015: Summer Arctic Clouds in the ECMWF Forecast Model: an Evaluation of Cloud Parameterization Schemes, American Geophysical Union Fall Meeting, 14-18 December 2015, San Francisco, California, USA.
- 193 Igel, A., A. Ekman, C. Leck, J. Savré, MT, and J. Sedlar, 2015: A24C-03 The Influence of Free Tropospheric Aerosol on the Boundary Layer Aerosol Budget in the Arctic, American Geophysical Union Fall Meeting, 14-18 December 2015, San Francisco, California, USA.
- 194 Johansson E. A Devasthale, MT, T. L'Ecuyer, and A. Ekman, 2016: The radiative response of the lower troposphere to moisture intrusions into the Arctic, European Geophysical Union General Assembly, 17-22 April 2016, Vienna, Austria.
- 195 Persson, O., B Blomquist, P. Guest, C. Fairall, S. Stammerjohn, I. Brooks, G. Björk, MT, and J. Inoue, 2016: Surface Energy Fluxes During Arctic Freeze-Up, European Geophysical Union General Assembly, 17-22 April 2016, Vienna, Austria.

- 196 MT, G. Sotiropoulou, J. Sedlar, P. Achtert, B. Brooks, I. Brooks, O. Persson, J. Prytherch, D. Salisbury, M. Shupe, P. Johnston, D. Wolfe, 2016: Contrasting sea-ice and open-water boundary layers during melt and freeze-up seasons: Some result from the Arctic Clouds in Summer Experiment, European Geophysical Union General Assembly, 17-22 April 2016, Vienna, Austria.
- 197 Sotiropoulou, G., J. Sedlar, R. Forbes and MT, 2016: Arctic clouds in the ECMWF forecast model: an evaluation of cloud parameterization schemes, European Geophysical Union General Assembly, 17-22 April 2016, Vienna, Austria.
- 198 Weixler, K., A. Ekman, C. Hoose, M. Paukert, J. Sedlar, MT, 2016: Analyzing the dissipation of an Arctic mixed-phase cloud during the ASCOS field campaign. 17th International Conference on Clouds & Precipitation, 25 - 29 July 2016, Manchester, UK.
- 199 Igel, A.L., A.M.L Ekman, C. Leck, J. Savre, MT and J. Sedlar, 2016: The Free Troposphere as a Source of Arctic Boundary Layer Aerosol. European Aerosol Conference 2016, 4-9 September 2016, Tours, France.
- 200 Thornton, B., M. C. Geibel, J. Prytherch, I. M. Brooks, D. Salisbury, MT, I. Simileto, C.-M. Mörtz, C. Humborg, and P. Crill: 2015: Methane isotopologues and eddy covariance fluxes above the mid and outer Laptev and East Siberian Seas during SWERUS-C3. XI. International Conference on Permafrost, 20 - 24 June 2016, Potsdam, Germany.
- 201 Weixler, K., A. Ekman, C. Hoose, M. Paukert, J. Sedlar, MT, 2016: Analyzing the dissipation of an Arctic mixed-phase cloud during the ASCOS field campaign. XVII International Conference on Clouds and Precipitation, 25-29 July, 2016, in Manchester, UK.
- 202 Prytherch, J., I. M. Brooks, P. M. Crill, B. F. Thornton, D. J. Salisbury, MT, L. G. Anderson, M. C. Geibel, Humborg, 2017: Direct measurement of air-sea CO₂ gas transfer velocity from an icebreaker in Arctic sea-ice regions. American Geophysical Union Fall Meeting, 12-16 December 2016, San Francisco, California, USA.
- 203 Persson, P. Ola G., B. W. Blomquist, P. S. Guest, I. M. Brooks, MT, A. A. Grachev, M. Shupe, and C. W. Fairall, 2017: Interactions between the atmospheric boundary layer and the advancing autumn sea ice. AMS 97th Annual Meeting, 23-26 February 2017, Seattle, Washington, USA.
- 204 MT, I. M. Brooks, J. Sedlar, M. Shupe, P. O. G. Persson, J. Prytherch, D. J. Salisbury, P. Achtert, B. J. Brooks, and G. Sotiropoulou, 2017: Summer Atmosphere Boundary-Layer Vertical Structure Downwind of the Ice Edge in on-Ice Advection. AMS 97th Annual Meeting, 23-26 February 2017, Seattle, Washington, USA.
- 205 Persson, P., B. Blomquist, C. Fairall, P. Guest, S. Stammerjohn, L. Rainville, J. Thomson, M. Smith, MT, A. Solomon, 2017: Arctic autumn air-ice-ocean interactions resulting from recent sea-ice decline. Arctic Science Summit Week, 31 March – 7 April, 2017, Prague, Czech Republic
- 206 MT, I. M. Brooks, J. Sedlar, M. Shupe, P. O. G. Persson, J. Prytherch, D. Salisbury, P. Achtert, B. Brooks and G. Sotiropoulou, 2017: Warm-air advection and clouds over melting Arctic summer sea ice. European Geophysical Union General Assembly, 23-28 April 2017, Vienna, Austria.
- 207 Persson, P.O.G., B. Blomquist, A. Solomon, M. Hughes, C. Fairall, P. Guest, S. Stammerjohn, L. Rainville, and MT, 2017: Potential Impacts of New Arctic Air-Ice-Ocean Interaction Processes on Climate Diagnostics. 42nd Climate Diagnostics and Prediction Workshop (CDPW), 23-26 October 2017, Norman, OK, USA.
- 208 Persson, P. O. G., B. Blomquist, C. Fairall, P. Guest, S. Stammerjohn, L. Rainville, J. Thomson, M. Smith, MT, and A. Solomon, 2017: Arctic autumn air-ice-ocean interactions resulting from recent Sea-ice decline. European Geophysical Union General Assembly, 23-28 April 2017, Vienna, Austria.
- 209 Prytherch, J., I. M. Brooks, P. M. Crill, B. F. Thornton, D. J. Salisbury, MT, L. G. Anderson, M. C. Geibel, Humborg, 2017: Direct measurement of air-sea CO₂ gas transfer velocity from an icebreaker in Arctic sea-ice regions. European Geophysical Union General Assembly, 23-28 April 2017, Vienna, Austria.
- 210 MT, I. M. Brooks, J. Sedlar, M. Shupe, P. O. G. Persson, J. Prytherch, D. Salisbury, P. Achtert, B. Brooks and G. Sotiropoulou, 2017: Interactions between summer warm-air advection, melting sea ice and low clouds. American Geophysical Union Fall Meeting, 11-15 December 2017, New Orleans, Louisiana, USA.
- 211 Igel, Al, L., A. Ekman, C. Leck, MT, J. Savre, and J. Sedlar, 2018: Boundary Layer Aerosol Sources and Cloud Interactions in the Summertime Remote Arctic. AMS 98th Annual Meeting, 7-11 January 2017, Austin, Texas, USA.
- 212 Shupe, M., O. Persson, MT, A. Solomon and Cox, 2018: Observed cloud-radiation processes and their impact on the Arctic surface. American Geophysical Union Fall Meeting, 11-15 December 2018, Washington D.C., USA.
- 213 Persson, O., B. Brooks, A. Solomon, G. deBoer, J. Intrieri, M. Shupe, I. Brooks, MT, J. Inoue, B. Blomquist, and A. Gasiewski, 2018: Mesoscale Structure of Arctic Cyclones and Their Impacts on Sea Ice:

- Observations From Past Field Campaigns. American Geophysical Union Fall Meeting, 11-15 December 2018, Washington D.C., USA.
- 214 MT, 2018: Boundary-Layer Fluxes: How do they relate to the bigger picture? 2nd AC3 Science Meeting, 12-14 October 2018, Bremerhaven, Germany.
- 215 MT, G. Svensson, I. Brooks, L. Magnusson, 2019: Experiences from Arctic forecasting during the Arctic Ocean 2016 expedition. First YOPP Science Meeting, 14-16 January 2019, Helsinki, Finland.
- 216 Sedlar, J., and MT, 2019: Confronting boundary-layer representation in regional climate models with observations. EGU General Assembly, 7-12 April 2019, Vienna, Austria.
- 217 Brooks, I., MT, J. Prytherch, P. Achtert, J. Vuellers, R. Neely, M. Gottschalk, U. Egerer, M. Wendisch, and H. Siebert, 2019: The atmospheric boundary layer during the Arctic Ocean 2018 expedition. EGU General Assembly, 7-12 April 2019, Vienna, Austria.
- 218 Prytherch, J., MT, I. Brooks, P. Achtert, B. Moat, and M. Yelland, 2019: Turbulent surface exchange during the Arctic Ocean 2018 expedition. EGU General Assembly, 7-12 April 2019, Vienna, Austria.
- 219 O. Persson, A. Solomon, M. Shupe, C. Cox, G. deBoer, J. Intrieri, M. Smith, S. Stammerjohn, J. Thomson, and MT, 2019: Understanding and Modeling of Coupled Air-Ice-Ocean Interactions. EGU General Assembly, 7-12 April 2019, Vienna, Austria.
- 220 MT and J. Sedlar, 2019: A process-based climatological evaluation of AIRS tropospheric thermodynamics over the high-latitude Arctic. EGU General Assembly, 7-12 April 2019, Vienna, Austria.
- 221 MT, I.M. Brooks, J. Prytherch, P. Achtert, J. Vuellers, 2019: The Atmospheric Boundary Layer during the Arctic Ocean 2018 Expedition, AMS Polar Meteorology and Oceanography symposium, 19-23 May 2019, Boulder, Colorado, USA.
- 222 MT, 2019: Experiences from Arctic field campaigns: Weather forecasting and evaluations, and model comparison, ECMWF workshop on Observational campaigns for better weather forecasts, 10-13 June 2019, Reading, UK.
- 223 MT 2019: Central Arctic atmospheric observations: On the need to break ice. European Meteorological society annual meeting, 9 September, 2019, Lyngby, Denmark (keynote presentation).
- 224 Vuellers, J., I.M. Brooks, MT, J. Prytherch, P. Achtert, R. Neely III, M. Gottschalk, U. Egerer, M. Wendisch and H. Siebert, 2019: The Arctic Boundary Layer during the Arctic Ocean 2018 expedition. American Geophysical Union Fall Meeting, 9-13 December 2019, San Francisco, USA.
- 225 Young, G., J. Vuellers, P. Achtert, P. Field, J. Day, E. O'Connor, I.M. Brooks, MT, J. Prytherch and R. Neely III, 2019: Evaluating Modelled Arctic Meteorology using Cloudnet. American Geophysical Union Fall Meeting, 9-13 December 2019, San Francisco, USA.
- 226 MT, C. You, A. Devasthale, and J. Prytherch, 2019: Air mass transformation as seen from space and reanalysis. American Geophysical Union Fall Meeting, 9-13 December 2019, San Francisco, USA.
- 227 Prytherch, J., B. Thornton, I.M. Brooks, P.M. Crill and MT, 2019: Air-water flux of CO₂ from ice- and ship-based eddy covariance measurements in Arctic sea-ice regions. American Geophysical Union Fall Meeting, 9-13 December 2019, San Francisco, USA.
- 228 Thomas, M.A., A. Devasthale, MT and A. Ekman, 2019: How do temperature inversions control aerosol vertical distribution in the Arctic? American Geophysical Union Fall Meeting, 9-13 December 2019, San Francisco, USA.
- 229 Synthesis of gap analysis and exploitation of the existing Arctic observing systems. Arctic Observing Summit 2020, 1 April, 2020 (invited panel presentation, virtual due to the pandemic).
- 230 Young, G., et al., 2020: Evaluating Arctic meteorology modelled with the Unified Model and Integrated Forecasting System. EGU General Assembly, 4-8 May 2020, Vienna, Austria.
- 231 Pirazzini, R., et al., 2020: Arctic observations: data collection, management, and user engagement. EGU General Assembly, 4-8 May 2020, Vienna, Austria.
- 232 Vihma, T., et al., 2020: Impact of assimilation of radiosonde and UAV observations on numerical weather prediction analyses and forecasts in the Arctic and Antarctic. EGU General Assembly, 4-8 May 2020, Vienna, Austria.
- 233 MT, 2020: High-latitude boundary layer: Vertical structure and dynamics. NASA PBL Incubation Virtual Workshop (on-line), 19-20 & 26-27 May 2020, Pasadena, USA
- 234 Baccarini, A., L. Karlsson, J. Dommen, P. Duplessis, J. Vuellers, I. M. Brooks, A. Saiz-Lopez, M. Salter, MT, U. Baltensperger, P. Zieger and J. Schmale, 2020: Iodine Drives New Particle Formation in the Central Arctic Ocean, American Geophysical Union Fall Meeting, 1-17 December 2020 (on-line), San Francisco, USA.

- 235 MT, G. Svensson, J. Prytherch, L. Magnusson, I. Brooks, J. Vüllers, and G. Young, 2021: Central Arctic weather forecasting: Confronting ECMWF/IFS with observations from the Arctic Ocean 2018 expedition. Arctic Frontiers 2021, 1-5 February 2021, Tromsø, Norway (virtual due to the Covid-19 pandemic).
- 236 You, C., MT and A. Devasthale, 2021: The role of atmospheric blockings in regulating the poleward heat and moist transport. American Geophysical Union Fall Meeting, 13 - 17 December 2021, New Orleans, USA.
- 237 You, C., MT and A. Devasthale, 2021: Lagrangian views on the warm and moist air intrusions into the Arctic. American Geophysical Union Fall Meeting, 13 - 17 December 2021, New Orleans, USA.