

PUBLICATION LIST FOR GUNILLA SVENSSON

March 2017

Publications in refereed journals:

1. Hudson, J.G., and G. Svensson, 1995: Cloud Microphysical Relationships in California Marine Stratus. *Journal of Applied Meteorology*, **34**, 2655 - 2666.
2. Svensson, G., 1996: A Numerical Model for Chemical and Meteorological Processes in the Atmospheric Boundary Layer - Part I. A Model Description and a Parameter Study. *Journal of Applied Meteorology*, **35**, 939-954.
3. Svensson, G., 1996: A Numerical Model for Chemical and Meteorological Processes in the Atmospheric Boundary Layer - Part II. A Case Study of the Air-Quality Situation in Athens, Greece. *Journal of Applied Meteorology*, **35**, 955-973.
4. Svensson, G., and J.H. Seinfeld, 1997: Simulations of marine boundary-layer clouds with a coupled aerosol-cloud model. *Journal of Aerosol Sciences*, **28**, 421-422.
5. Svensson, G., 1998: Model Simulations of the Air Quality in Athens, Greece, During the MEDCAPHOT-TRACE Campaign. *Atmospheric Environment*, **32**, 2239-2268.
6. Svensson, G., and O. Klemm 1998: Aircraft Measurements and Model Simulations of the Air Quality in Athens, Greece. *Atmospheric Environment*, **32**, 2269-2289.
7. Svensson, G., M. Tjernström, and D. Koracin, 2000: The sensitivity of a stratocumulus transition: Model simulations of the ASTEX first Lagrangian. *Bound-Layer Meteor.*, **95**, 57-90. Errata: Svensson, G., M. Tjernström, and D. Koracin, 2001: The sensitivity of a stratocumulus transition: Model simulations of the ASTEX first Lagrangian (vol 95, pg 57, 2000). *Boundary-Layer Meteorology*, **98**, 173-177.
8. Svensson, G., and J.H. Seinfeld, 2002: A numerical model of the cloud-topped marine boundary layer with explicit treatment of supersaturation-number concentration correlations. *Quarterly Journal of the Meteorological Society*, **128**, 535–558.
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10. Sigg, R., and G. Svensson, 2004: Three-dimensional simulation of the ASTEX Lagrangian 1 field experiment with a regional numerical weather prediction model. *Quarterly Journal of the Meteorological Society*, **130**, 707-724.
11. Tjernström, M., M. Žagar and G. Svensson, 2004: Model simulations of the Arctic atmospheric boundary layer from the SHEBA year. *AMBIO*, **33**, 221-227.
12. Glantz, P. G. Svensson, K.J. Noone, and S.R.Osborne: 2004: Sea-salt aerosols over the Northeast Atlantic: Model simulations of ACE-2 2nd Lagrangian experiment. *Quarterly Journal of the Royal Meteorological Society*, **130**, 2191-2215.
13. Mauritzen, T., G. Svensson and B. Grisogono, 2005: Wave flow simulations over Arctic leads. *Boundary-Layer Meteorology*, **117**, 259-273.
14. Žagar, M., G. Svensson and M. Tjernström, 2005: High spatial and temporal variability of dry deposition in a coastal region. *Environmental Fluid Mechanics*, **5**, 357-372. DOI 10.1007/s10652-004-7301-4
15. Tjernström, M., M. Žagar, G. Svensson, J Cassano, S. Pfeifer, A. Rinke, K. Wyser, K. Dethloff, C. Jones and T. Semmler, 2005: Modeling the Arctic Boundary Layer: An evaluation of six ARCMIP regional-scale models with data from the SHEBA project. *Boundary-Layer Meteorology*, **117**, 337-381

16. Spokes, L., T. Jickells, K. Weston, B. Gustafsson, M. Johnsson B, Liljebladh, D. Conley, C. Ambelas-Skjødth, J. Brandt, J. Carstensen, T. Christiansen, L. Frohn, G. Geenaert, O. Hertel, B. Jensen, C. Lundsgaard, S. Markager, W. Martinsen B. Møller, B. Pedersen, K. Sauerberg, L. Sørenson, C. Hasager, A. Sempreiva, S. Pryor, L. Søren, M. Tjernström, G. Svensson, M. Žagar, 2006: MEAD – An Interdisciplinary study of the marine effects of atmospheric deposition in the Kattegatt, *Environmental Pollution*, **140**, 453-462.
17. Cuxart, J., A.A.M. Holtslag, R. J. Beare, E. Bazile, A. Beljaars, A. Cheng, L. Conangla, M. Ek, F. Freedman, R. Hamdi, A. Kerstein, H. Kitagawa, G. Lenderink, D. Lewellen, J. Mailhot, T. Mauritsen, V. Perov, G. Schayes, G-J Steeneveld, G. Svensson, P. Taylor, W. Weng, S. Wunsch, and K.-M. Xu, 2006: Single-column model intercomparison for a stably stratified atmospheric boundary layer. *Boundary-Layer Meteorology*, **118**, 273-303.
18. Mauritsen, T. and G. Svensson, 2007: Observations of stably stratified shear-driven atmospheric turbulence at low and high Richardson numbers. *Journal of the Atmospheric Sciences*, **64**, 645–655.
19. Mauritsen, T., G. Svensson, S. Zilitinkevich, I Esau, L. Enger, and B. Grisogono, 2007: A total turbulent energy closure model for neutral and stably stratified atmospheric boundary layers. *Journal of the Atmospheric Sciences*, **64**, 4113-4126.
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25. Graversen, R.G., T. Mauritsen, M. Tjernström, E. Källén and G. Svensson, 2008: Reply. *Nature*, **455**, E4-E5, doi:10.1038/nature07259.
26. Tjernström, M., B. Balsley, G. Svensson, and C. J. Nappo, 2009: The effects of critical layers on residual layer turbulence. *Journal of the Atmospheric Sciences*, **66**, 468-480.
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28. Kumar, V., G. Svensson, A.A.M. Holtslag, M. B. Parlange, and C. Meneveau, 2010: Impact of surface flux formulations and geostrophic forcing on large-eddy simulations of the diurnal atmospheric boundary layer flow. *Journal of Applied Meteorology and Climatology*. **49**, 1496-1516. DOI: 10.1175/2010JAMC2145.1

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33. Axelsson, P., M. Tjernström, S. Söderberg and G. Svensson, 2011: An ensemble of Arctic simulations of the AOE-2001 field experiment. *Atmosphere*, **2**, 146-170, doi:10.3390/atmos2020146
34. Svensson, G., A.A.M. Holtslag, V. Kumar, T. Mauritsen, G.J. Steeneveld, W. M. Angevine, E. Bazile, A. Beljaars, E.I.F. de Bruijn, A. Cheng, L. Conangla, J. Cuxart, M. Ek, M. J. Falk, F. Freedman, H. Kitagawa, V. E. Larson, A. Lock, J. Mailhot, V. Masson, S. Park, J. Pleim, S. Söderberg, M. Zampieri and W. Weng, 2011: Evaluation of the diurnal cycle in the atmospheric boundary layer over land as represented by a variety of single column models – the second GABLS experiment. *Boundary-Layer Meteorology*, **140**, 177-206.
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39. Koenigk T., L. Brodeau, R. G. Graversen, J. Karlsson, G. Svensson, M. Tjernström, U. Willén, and, K. Wyser, 2013: Arctic Climate Change in 21st Century CMIP5 Simulations with EC-Earth. *Climate dynamics*, **40**, 2719-2743.
40. Holtslag A.A.M., G. Svensson, P. Baas, S. Basu, B. Beare, A.C.M. Beljaars, F.C. Bosveld, J. Cuxart, J. Lindvall, T. Mauritsen, G.J. Steeneveld, M. Tjernström, and B.J.H. Van De Wiel, 2013: Diurnal cycles of temperature and wind – Still a challenge for weather and climate models. *Bulletin of the American Meteorological Society*. **94**, pp. 1691-1706, doi:10.1175/BAMS-D-11-00187.1
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46. Bosveld F., P. Baas, G.J. Steeneveld, A.A.M. Holtslag, F. C. Bosveld, W. M. Angevine, E. Bazile, E. I.F. de Bruijn, D. Deacu, J. M. Edwards, M. Ek, V. E. Larson, J. E. Pleim, M. Raschendorfer, and G. Svensson, 2014: The third GABLS intercomparison case for model evaluation, Part B: Single Column Model results and process understanding. *Boundary-Layer Meteorology*, **152**, 157-187.
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63. Li, X., A. Brandenburg, N.E.L. Haugen, and G. Svensson, 2017: Eulerian and modified Lagrangian approaches to multi-dimensional condensation and coagulation. *Journal of Advances in Modeling Earth Systems*. In review.
64. Hartung, K., G. Svensson and E. Kjellström, 2017: Model resolution, physics and atmosphere-ocean interaction - How do they influence Euro-Atlantic atmospheric blocking? 2017 *Tellus*. In review.

Book chapters:

Svensson G. 1995: Numerical Modeling of Chemical and Meteorological Processes in the Atmospheric Boundary Layer. *Environmental Informatics – Methodology and Applications of Environmental Information Processing*, 257 - 279. Eds N. M. Avouris and B. Page, Kluwer Academic Publishers.

Svensson G., and O. Klemm, 1996: A comparison study of air-quality model simulation results with aircraft data. *Air pollution modeling and its application XI*, 593-600. Eds Sven-Erik Gryning and Francis A. Schiermeier. Plenum Press.

Tjernström, M., G. Svensson, P. Samuelsson and R. Sundararajan, 2003: Mesoscale dynamics: What is it, can it be defined, and is it important? 315 – 331. *Air Pollution Processes in Regional Scale*. Eds D. Melas and D. Syrakov. Kluwer Academic Publishers.

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Theses:

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Conference proceedings (not complete):

1. Svensson G., 1995: Modeling the air quality situation in Athens during the MEDCAPHOT-TRACE campaign. *Seventh Conference on Mountain Meteorology, Breckenridge*, July 17-21, pp 176-179.
2. Svensson G. and O. Klemm, 1995: A comparison study of air-quality model simulation results with aircraft data. *Twenty-first technical meeting on air pollution modelling and its application*, Baltimore, Nov 6-10, pp 402-409.
3. Svensson G. and J.H. Seinfeld, 1997: Simulations of marine boundary-layer clouds with a coupled aerosol-cloud model. *Third conference on Atmospheric Chemistry*, Long Beach, USA.
4. Svensson G., 1997: Model study of the air quality in Athens, *Greece. Third conference on Atmospheric Chemistry*, Long Beach, USA.
5. Koracin, D., M. Tjernström., and, G. Svensson, 1997: Turbulence transfer and non-local mixing processes in the cloudy marine atmospheric boundary layer. *12th Symposium on Boundary Layers and Turbulence*, Vancouver, Canada.
6. Tjernström M., G. Svensson, and D. Koracin, 1997: A numerical investigation of the first ASTEX Lagrangian. *Joint Assemblies of the International Association of Meteorology and Atmospheric Sciences*, Melbourne, Australia.
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14. Tjernström, M. M. Žagar, G. Svensson, K. Dethloff, A. Rinke, J. Cassano, S. Pfeifer, T. Semmler, C. Jones and K. Wyser, 2004: The arctic boundary-layer in six different RCM compared to SHEBA observations (ARCMIP). *First WCRP Regional Climate Modeling Workshop*. Lund, Sweden.
15. Svensson, G, 2004: Air quality modeling using off-line and on-line techniques. *16th Symposium on Boundary Layers and Turbulence*, Portland, Maine, USA.
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