

# CURRICULUM VITAE

## PERSONALIA

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Name Gerard Johannes (Gert-Jan) Steeneveld  
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Date of birth June 25, 1978  
Citizenship Dutch



## EDUCATION & RESEARCH EXPERIENCE

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- 2016 - Associate professor Wageningen University
- 2017- PI SUBLIME: *Single-column Urban Boundary Layer Inter-comparison Model Experiment*
- Sept+Oct 2017 Scientific Visit, DTU, Roskilde, Denmark
- 2017 Leadership Development Program Wageningen university
- 2013 Two month sabbatical Centre National Recherche Meteorologie, Toulouse, France
- 2010 - 2016 Assistant professor Wageningen University
- 2007 Postdoc on atmospheric boundary layer research, Wageningen University.
- Summer 2011 Participation in BLLAST observational campaign.
- Summer 2008 WRF-Development Testbed Center visitor. USA National Weather Centre
- 2007-2013 Participant HYDRALABIII & HYDRALABIV (EU) project.
- 2008-2010 Participant in UrbanMet model intercomparison for the urban boundary layer.
- 2007 PhD on “Understanding and prediction of stable boundary layers over Land”, Wageningen University, supervisors: prof. dr. Holtslag, dr. ir. van de Wiel.
- Sept 2006 – Oct 2006 Visiting Scientist MISU, Stockholm University, Sweden.
- Sept 2001 - Mar 2002 Internship KNMI: Sensitivity analysis of a plant physiological method to determine the evapotranspiration of forests (A-gs model).
- 2002 Candidate MSc. Soil, Water and Atmosphere. Specialization: Meteorology. Wageningen University, The Netherlands. Passed with distinction.
- 2000 Certificate Bsc. Soil, Water and Atmosphere. Specialization: Meteorology. Wageningen University, The Netherlands.
- 1997 Diploma secondary school “College Het Loo” in Voorburg, The Netherlands.

## AWARDS AND SCHOLARSHIPS

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- 2004 Young Scientist Travel Award, 4<sup>th</sup> Annual Meeting of the European Meteor. Soc., Berlin.
- 2005 Kipp and Zonen Award, Annual Meeting European Meteor. Soc., Utrecht, The Netherlands.
- 2006 Runner-up, 17<sup>th</sup> Symp. on *Boundary layers & turbulence*, Amer. Meteor. Soc., San Diego
- 2006 Young Scientist Travel Award, 6<sup>th</sup> Annual Meeting of the European Meteor. Soc., Berlin.
- 2006 NWO (Dutch Science Foundation) short travel bursary.
- 2009 KNAW-Casimir Ziegler Stipendium
- 2010 NWO VENI grant, “Lifting the fog”

- 2011 Honourable recognition NVBM awards 2011, Dutch Association of Professional Meteorologists.
- 2013 Young Scientist Award, Eur. Meteorol. Soc.
- 2013 Finalist Harry Otten Prize competition
- 2015 NWO VIDI grant, “The Windy City”
- 2017 Finalist Harry Otten Prize competition

## **ADDITIONAL ACTIVITIES**

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- 2017 co-organisor Lorentz workshop “eWUDAPT: Bringing eScience to Urban Climate Mapping and Modelling”
- 2013-present Committee on Meetings, EMS
- 2013-present Member programme committee BSc Soil Water Atmosphere/MSc Earth & Environment
- 2013-present Associate Editor Frontiers in Earth Sciences.
- 2013-present Associate Editor Quarterly Journal of the Roy. Meteorol. Soc.
- 2010-present Member AGU, AMS, Int. Ass. Urban Climate.
- 2007-present Co-convenor Session “Modelling, forecasting and validation of Small-scale Processes in Atmospheric Models” at the EMS Annual Meeting.
- 2004-present Member of the ‘Nederlandse Vereniging van Beroepsmeteorologen’ (Dutch Association of Professional Meteorologists).

## **SCIENTIFIC PUBLICATIONS:**

### *Articles*

1. **Steeneveld, G.J.**, Holtslag, A.A.M., DeBruin, H.A.R, 2005: Fluxes and gradients in the convective surface layer and the possible role of boundary-layer depth and entrainment flux, *Bound.-Layer Meteor.*, **116**, 237-252.
2. **Steeneveld, G.J.**, Wiel, B.J.H. van de, and Holtslag, A.A.M., 2006: Modelling the Arctic Stable boundary layer and its coupling to the surface, *Bound.-Layer Meteor.*, **118**, 357-378.
3. Cuxart, J., Holtslag, A.A.M., Beare, R.J., Bazile, E., Beljaars, A.C.M., Cheng, A., Conangla, L., Ek, M., Freedman, F., Hamdi, R., Kerstein, A., Kitagawa, H., Lenderink, G., Lewellen, D., Mailhot, J., Mauritzen, T., Perov, V., Schayes, G., **Steeneveld, G.J.**, Svensson, G., Taylor, P.A., Weng, W., Wunsch, S., and Xu, K-M., 2006: A single-column model intercomparison for a stably stratified atmospheric boundary layer, *Bound.-Layer Meteor.*, **118**, 273-303.
4. **Steeneveld, G.J.**, B.J.H. van de Wiel and A.A.M. Holtslag, 2006: Modeling the evolution of the atmospheric boundary layer coupled to the land surface for three contrasting nights in CASES-99, *J. Atmos. Sci.*, **63**, 920-935.
5. Baas, P., **G.J. Steeneveld**, B.J.H. van de Wiel and A.A.M. Holtslag, 2006: Exploring self Correlation in flux-gradient relationships for stably stratified conditions, *J. Atmos Sci.*, **63**, 3045-3054.
6. **Steeneveld, G.J.**, B.J.H. van de Wiel and A.A.M. Holtslag, 2007: Diagnostic equations for the stable boundary layer height: evaluation and dimensional analysis, *J. Appl. Meteor. Clim.*, **46**, 212-225.
7. **Steeneveld, G.J.**, B.J.H. van de Wiel and A.A.M. Holtslag 2007: Comments on deriving the equilibrium height of the stable boundary layer, *Quart. J. Roy. Meteor. Soc.*, **133**, 261-264.
8. Wiel, B.J.H. v.d., A.F. Moene, **G.J. Steeneveld**, O.K. Hartogensis, A.A.M. Holtslag, 2007: Predicting the collapse of turbulence in stably stratified boundary layers, *Turb. Flow, Comb.*, **79**, 251-274.
9. Holtslag, A.A.M., **G.J Steeneveld**, and B. J. H. van de Wiel, 2007: Role of land surface temperature feedback on model performance for stable boundary layers, *Bound-Layer Meteor.*, **125**, 361-376.

10. Basu, S., A.A.M. Holtslag, B.J.H. van de Wiel, A.F. Moene, and **G.J. Steeneveld**, 2008: An inconvenient 'truth' about using the sensible heatflux as a surface boundary condition in models under stably stratified regimes. *Acta Geophys.*, **56**, 88-99.
11. **Steeneveld, G.J.**, T. Mauritzen, E.I.F. de Bruijn, J. Vilà-Guerau de Arellano, G. Svensson and A.A.M. Holtslag, 2008: Evaluation of limited area models for the representation of the diurnal cycle and contrasting nights in CASES99, *J. Appl. Meteor. Clim.*, **47**, 869-887.
12. **Steeneveld, G.J.**, A.A.M. Holtslag, C.J. Nappo, B.J.H. van de Wiel, L. Mahrt, 2008: Exploring the role of small-scale terrain drag on stable boundary layers over land. *J. Appl. Meteor. Clim.*, **47**, 2518-2530.
13. **Steeneveld, G.J.**, C.J. Nappo, and A.A.M. Holtslag, 2009: Estimation of Orographically Induced Wave Drag in the Stable Boundary Layer during CASES99, *Acta Geophys.* **57**, 857-881.
14. **Steeneveld, G.J.**, M.J.J. Wokke, C.D. Groot Zwaaftink, S. Pijlman, B.G. Heusinkveld, A.F.G. Jacobs, A.A.M. Holtslag, 2010: Observations of the radiation divergence in the surface layer and its implication for its parametrization in numerical weather prediction models, *J. Geophys Res. Atmos.*, **115**, D06107, doi:10.1029/2009JD013074
15. Velde, I.R. van der, **G.J. Steeneveld**, B.G.J. Wijchers Schreur, and A.A.M. Holtslag, 2010: Modeling and Forecasting the Onset and Duration of a Severe Dutch Fog Event. *Mon. Wea. Rev.*, **138**, 4237-4253. doi: 10.1175/2010MWR3427.1.
16. Tolk, L.F., W. Peters, A.G.C.A. Meesters, M. Groenendijk, A.T. Vermeulen, **G.J. Steeneveld**, and A.J. Dolman, 2009: Modelling regional scale surface fluxes, meteorology and CO<sub>2</sub> mixing ratios for the Cabauw tower in Netherlands, *Biogeosciences*, **6**, 2265-2280.
17. Theeuwes, N.E., **G.J. Steeneveld**, F. Krikken, A.A.M. Holtslag, 2010: Mesoscale modeling of lake effect snow over Lake Erie - Sensitivity to convection, microphysics and the water temperature, *Adv. Sci. Res.*, **4**, 15-22
18. Grimmond, C.S.B., M. Blackett, M. Best, J. Barlow, J.-J. Baik, S. Belcher, S.I. Bohnenstengel, I. Calmet, F. Chen, A. Dandou , K.Fortuniak, M. Gouvea, R. Hamdi, M. Hendry, H. Kondo, S. Krayenhoff, S.-H. Lee , T. Loridan, A. Martilli, V. Masson, S. Miao, K. Oleson, G. Pigeon, A. Porson, F. Salamanca, L. Shashua-Bar, **G.J. Steeneveld**, M. Tombrou, J. Voogt, N. Zhang, 2010: The International Urban Energy Balance Models Comparison Project: First results from Phase 1, *J. Appl. Meteor. Clim*, **49**, 1268–1292.
19. Wiel, B.J.H. van de, A.F. Moene, **G.J. Steeneveld**, P. Baas, F.C. Bosveld, A.A.M. Holtslag, 2010: A conceptual view on inertial oscillations and nocturnal low-level jets, *J. Atmos. Sci.*, **67**, 2679-2689.
20. Grimmond, C.S.B., M Blackett, MJ Best, J-J Baik, SE Belcher, SI Bohnenstengel,I Calmet, F Chen, A Coutts, A Dandou, K Fortuniak, ML Gouvea, R Hamdi, M Hendry, M Kanda, T Kawai, Y Kawamoto, H Kondo, ES Krayenhoff, S-H Lee, T Loridan, A Martilli,V Masson, S Miao, K Oleson, R Ooka, G Pigeon, A Porson, Y-H Ryu, F Salamanca, **G.J. Steeneveld**, M Tombrou, JA Voogt, D Young, N Zhang, 2010: Initial Results from Phase 2 of the International Urban Energy Balance Comparison Project, *Int. J. Climatol.*, **31**, 244-272 , doi: 10.1002/joc.2227.
21. **Steeneveld, G.J.**, A.A.M. Holtslag, R.T. McNider, and R.A. Pielke Sr., 2011: Screen level temperature increase due to higher atmospheric carbon dioxide in calm and windy nights revisited, *J. Geophys. Res.*, **116**, D02122, doi:10.1029/2010JD014612.
22. Wiel, B.J.H. van de, S. Basu, A.F. Moene, H.J.J. Jonker, **G.J. Steeneveld**, A.A.M. Holtslag, 2011: Comments on “An extremum solution of the Monin-Obukhov similarity equations”, *J. Atmos. Sci.*, **68**, 1405-1408.

23. 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.J. Falk, V.E. Larson, J. Mailhot, V. Masson, S. Park, J. Pleim and S. Söderberg, 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, *Bound.-Layer Meteor.*, **140**, 177–206.
24. **Steeneveld, G.J.**, S. Koopmans, B.G. Heusinkveld, L.W.A. van Hove, and A.A.M. Holtslag, 2011: Quantifying Urban Heat Island Effects And Human Comfort For Cities Of Variable Size And Urban Morphology In The Netherlands., *J. Geophys. Res.*, **116**, D20129, doi:10.1029/2011JD015988.
25. **Steeneveld, G.J.**, L.F. Tolk, A.F. Moene, O.K. Hartogensis, W. Peters, and A.A.M. Holtslag, 2011: Confronting the WRF and RAMS mesoscale models with innovative observations in the Netherlands: Evaluating the boundary layer heat budget, *J. Geophys. Res.*, **116**, D23114, doi:10.1029/2011JD016303.
26. Westra, D., **G.J. Steeneveld**, A.A.M. Holtslag, 2012: Some observational evidence for dry soils supporting enhanced relative humidity at the convective boundary layer top, *J. Hydrometeorol.* **13**, 1347–1358.
27. Krikken, F., **G.J. Steeneveld**, 2012: Modeling the Reintensification of Tropical Storm Erin (2007) over Oklahoma: understanding the key role of downdraft formulation, *Tellus A*, **64**, 17417, doi: 10.3402/tellusa.v64i0.17417.
28. McNider, R.T., **G.J. Steeneveld**, A.A.M. Holtslag, R.A. Pielke Sr., S. Mackaro, A. Pour-Bazar, J. Walters, U. Nair, and J. Christy, 2012: Response and sensitivity of the nocturnal boundary layer over land to added longwave radiative forcing, *J. Geophys. Res.*, **117**, D14106, doi:10.1029/2012JD017578.
29. Bosveld, F.C., P. Baas, E. van Meijgaard, E.I.F. De Bruijn, **G.J. Steeneveld**, and A.A.M. Holtslag 2014: The GABLS third intercomparison case for model evaluation, Part A: Case Selection and Set-up, *Bound.-Layer Meteor.*, **152**, 133–156.
30. Bosveld, F.C., P. Baas, **G.J. Steeneveld**, A.A.M. Holtslag, 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, G. Svensson, 2014: The GABLS third intercomparison case for model evaluation, Part B: SCM model intercomparison and evaluation, *Bound.-Layer Meteor.*, **152**, 157–187.
31. Sterk, H.A.M., **G.J. Steeneveld**, A.A.M. Holtslag, 2013: The role of snow-surface coupling, radiation and turbulent mixing in modeling a stable boundary layer over Arctic sea-ice, *J. Geophys. Res. Atmos.*, **118**, 1199–1217. doi:10.1002/jgrd.50158.
32. Holtslag, A.A.M., G Svensson, P. Baas, S. Basu, B. Beare, A. Beljaars, F. Bosveld, J. Cuxart, J. Lindvall, **G.J. Steeneveld**, M. Tjernström, B.J.H. van de Wiel, 2013: Diurnal cycles of temperature and wind - A challenge for weather and climate models, *Bull. Amer. Meteorol. Soc.* **94**, 1691–1706. doi: 10.1175/BAMS-D-11-00187.1.
33. Garai, A., E. Pardyjak, M. Lothon, and **G.J. Steeneveld**, J. Kleissl, 2013: Surface temperature and surface layer turbulence in a convective boundary layer, *Bound.-Layer Meteor.*, **148**, 51–72, doi: 10.1007/s10546-013-9803-4.
34. Overeem, A., J. C. R. Robinson, H. Leijnse, **G. J. Steeneveld**, B. K. P. Horn, R. Uijlenhoet, 2013: Crowdsourcing urban air temperatures from smartphone battery temperatures, *Geophys. Res. Lett.*, **40**, 4081–4085, doi: 10.1002/grl.50786.
35. Theeuwes, N.E., A. Solcerova, **G.J. Steeneveld**, 2013: Mesoscale modelling the influence of water bodies on the urban heat island effect and human thermal comfort, *J. Geophys Res.*, **118**, 8881–8896.
36. **Steeneveld, G.J.**, S. Koopmans, B.G. Heusinkveld, and N.E. Theeuwes, 2014: Refreshing the role of open water surfaces on mitigating the maximum urban heat island effect, *Landscape and Urban Planning*, **121**, 92–96.

37. Basu, S., A.A.M. Holtslag, L. Caporaso, A. Riccio, **G.J. Steeneveld**, 2014: Observational Support for the Stability Dependence of the Bulk Richardson Number across the Stable Boundary Layer. *Bound.-Layer Meteorol.* **150**, 515–523. doi: 10.1007/s10546-013-9878-y.
38. Kleczek, M.A., **G.J. Steeneveld**, A.A.M. Holtslag, 2014: Evaluation of the Weather Research and Forecasting mesoscale model for GABLS3: Impact of boundary-layer schemes, boundary conditions and spin-up, *Bound.-Layer Meteorol.* **152**, 213-243.
39. Lothon, M., F. Lohou, D. Pino, F. Couvreux, E.R. Pardyjak, J. Reuder, J. Vilà-Guerau de Arellano, P. Durand, O. Hartogensis, D. Legain, P. Augustin, I. Falloona, D. C. Alexander, W.M. Angevine, E. Bargain, J. Barrié, E. Bazile, Y. Bezombes, E. Blay-Carreras, A. van de Boer, J.-L. Boichard, A. Bourdon, A. Butet, B. Campistron, O. de Coster, J. Cuxart, A. Dabas, C. Darbieu, K. Deboult, H. Delbarre, S. Derrien, P. Flament, M. Fourmentin, A. Garai, B. Gioli, J. Groebner, F. Guichard, M. A. Jimenez, M. Jonassen, A. van de Kroonenberg, D.H. Lenschow, E. Magliulo, S. Martin, D. Martinez, L. Mastrotollo, A.F. Moene, F. Molinos, E. Moulin, H. P. Pietersen, B. Piguet, E. Pique, C. Román-Cascón, C. Rufin-Soler, F. Saïd, M. Sastre-Marugán, Y. Seity, **G.J. Steeneveld**, P. Toscano, O. Traullé, D. Tzanos, C. Yagüe, S. Wacker, N. Wildmann, and A. Zaldei, 2014: The BLLAST field experiment: Boundary-Layer Late Afternoon and Sunset Turbulence, *Atmos. Chem. Phys.*, **14**, 10931-10960, doi:10.5194/acp-14-10931-2014.
40. Koopmans, S., N.E. Theeuwes, **G.J. Steeneveld**, 2015: Mesoscale modelling the impact of urbanization on weather station De Bilt in the 20th century, *Int. J. Clim.* **35**, 1732–1748.
41. Heusinkveld, B.G., **G.J. Steeneveld**, L.W.A. van Hove, C.M.J. Jacobs, A.A.M. Holtslag, 2014: Spatial variability of the Rotterdam urban heat island as influenced by vegetation cover and building density, *J. Geophys. Res.*, **119**, 677–692, doi:10.1002/2012JD019399.
42. Theeuwes, N.E., **G.J. Steeneveld**, R.J. Ronda, B.G. Heusinkveld, L.W.A. van Hove, A.A.M. Holtslag, 2014: The influence of street canyon aspect ratio on the urban heat island: column model approach compared to observations, *Quart. J. Roy. Meteor. Soc.*, **140**, 2197–2210.
43. **Steeneveld, G.J.**, R.J. Ronda, A.A.M. Holtslag 2015: The challenge of forecasting the onset and development of radiation fog with the HARMONIE and WRF mesoscale atmospheric models. *Bound.-Layer Meteorol.* **154**, 265-289.
44. Sterk, H.A.M., **G.J. Steeneveld**, T. Vihma, P.S. Anderson, F.C. Bosveld and A.A.M. Holtslag, 2015: Clear-sky stable boundary layers with low winds over snow-covered surfaces Part I: A WRF model evaluation, *Quart. J. Roy. Meteor. Soc.*, **141**, 2165–2184.
45. Sterk, H.A.M., **G.J. Steeneveld**, T. Vihma, P.S. Anderson, F.C. Bosveld and A.A.M. Holtslag, 2015: Modelling stable boundary layers with low winds over snow. Part II: Process Sensitivity, *Quart. J. Roy. Meteor. Soc.*, **142**, 821-835.
46. Enyew, B.D., **G.J. Steeneveld**, 2014: Analysing the Impact of Topography on Precipitation and Flooding on the Ethiopian Highlands, *J. Geol. Geosci.*, **3**, 173.
47. Molenaar, R.E., B.G. Heusinkveld, **G.J. Steeneveld**, 2016: Projection of rural and urban human thermal comfort in the Netherlands for 2050, *Int. J. Climatol.*, **36**, 1708–1723
48. **Steeneveld, G.J.**, 2014: Current Challenges in Understanding and Forecasting Stable Boundary Layers over Land and Ice, *Frontiers in Earth Science*, **2**, 41, doi: 10.3389/fenvs.2014.00041.
49. Román-Cascón C., C. Yagüe, L. Mahrt, M. Sastre, **G.J. Steeneveld**, E. Pardyjak, A. van de Boer, O.K. Hartogensis, 2015: Interactions among drainage flows, gravity waves and turbulence: a BLLAST case study, *Atmos. Chem. Phys.*, **15**, 9031–9047.
50. Theeuwes, N.E., **Steeneveld, G.J.**, R.J. Ronda, M.W. Rotach, A.A.M. Holtslag, 2015: Cool city mornings by urban heat, *Environ. Res. Lett.*, **10** (11), 114022-114030.

51. Roman-Cascon, C., **G.J. Steeneveld**, C. Yagüe, M. Sastre, J.A. Arrillaga, G. Maqueda, 2016: Forecasting radiation fogs at climatologically contrasting sites: evaluation of statistical methods and WRF, *Quart. J. Roy. Meteor. Soc.*, **142**, 1048–1063.
52. Theeuwes, N.E., **Steeneveld, G.J.**, R.J. Ronda, A.A.M. Holtslag, 2017: A diagnostic equation for the daily maximum urban heat island effect for cities in North-Western Europe, *Int. J. Climatol.*, **37**, 443–454.
53. Roman-Cascon, C., C. Yague, **G.J. Steeneveld**, M. Sastre, J.A. Arrillaga, G. Maqueda, 2016: Estimating fog-top height through near-surface micrometeorological measurements, *Atmos. Res.* **170**, 76–86.
54. Kalverla, P., G.J. Duine, **G.J. Steeneveld**, T. Hedde, 2016: Evaluation of the Weather Research and Forecasting model for contrasting diurnal cycles in the Durance Valley complex terrain during the KASCADE field campaign, *J. Appl. Meteorol. Climatol.* **55**, 861–882.
55. **Steeneveld, G.J.**, J.O. Klompaker, R.J. Groen, A.A.M. Holtslag, 2018: An Urban Climate Assessment and Management tool for combined heat and air quality judgements at neighbourhood scales. *Resources, Conservation, and Recycling*, **132**, 204–217.
56. Pithan, F., A. Ackerman, W.M. Angevine, K. Hartung, L. Ickes, M. Kelley, B. Medeiros, I. Sandu, **G.J. Steeneveld**, H.A.M. Sterk, G. Svensson, P.A. Vaillancourt, A. Zadra, 2016: Strengths and biases of models in representing the Arctic winter boundary layer: the Larcform 1 single column model intercomparison, *J. Adv. Mod Earth Syst.*, **8**, 1345–1357.
57. Christakos K., I. Cheliotis, G. Varlas, **G.J. Steeneveld**, 2016: Offshore Wind Energy Analysis of Cyclone Xaver over North Europe. *Energy Procedia*, **94**, 37–44.
58. Droste, A.M., J.J. Pape, A. Overeem, H. Leijnse, **G.J. Steeneveld**, A. van Delden, R. Uijlenhoet, 2017: Crowdsourcing urban air temperatures through smartphone battery temperatures in São Paulo, Brazil. *J. Atmos. Ocean. Techn.*, **34**, 1853–1866.
59. Tsiringakis, A., **G.J. Steeneveld**, and A.A.M Holtslag, 2017: Small-scale orographic gravity wave drag in stable boundary layers and its impacts on synoptic systems and near surface meteorology, *Quart. J. Roy. Meteor. Soc.*, **143**, 1504–1516.
60. Kalverla, P.C., **G.J. Steeneveld**, R.J. Ronda and A. A. M. Holtslag, 2017: An observational climatology of wind and wind extremes at the North Sea for load assessment studies, *J of Wind Engineering & Industrial Aerodynamics* **165**, 86–99.
61. **Steeneveld, G.J.**, D. Dobrovolschi, A. Paci, O. Eiff, L. Lacaze, H. Limberg, A.A.M. Holtslag, 2017: Sensing the stable boundary layer in a towing tank, in prep.
62. Ronda, R.J., **G.J. Steeneveld**, B.G. Heusinkveld, J.J. Attema, A.A.M. Holtslag, 2017: Urban fine-scale weather forecasting for Amsterdam neighborhoods, *Bull. American Meteorol. Soc.* **98**, 2675–2688.
63. Gentine, P., **G.J. Steeneveld**, B.G. Heusinkveld, and A.A.M. Holtslag, 2018: Coupling between radiative flux divergence and turbulence near the surface, *Quart. J. Roy Meteor. Soc.* **144**, 2491–2507.
64. Barlow, J., M. Best, S.I. Bohnenstengel, P. Clark, S. Grimmond, H. Lean, A. Christen, S. Emeis, M. Haeffelin, I.N. Harman, A. Lemonsu, A. Martilli, E. Pardyjak, M.W. Rotach, S. Ballard, I. Boutle, A. Brown, X. Cai, M. Carpentieri, O. Coceal, B. Crawford, S. Di Sabatino, J. Dou, D.R. Drew, J.M. Edwards, J. Fallmann, K. Fortuniak, J. Gornall, T. Gronemeier, C.H. Halios, D. Hertwig, K. Hirano, A.A. Holtslag, Z. Luo, G. Mills, M. Nakayoshi, K. Pain, K.H. Schlünzen, S. Smith, L. Soulhac, **G. Steeneveld**, T. Sun, N.E. Theeuwes, D. Thomson, J.A. Voogt, H.C. Ward, Z. Xie, and J. Zhong, 2017: Developing a research strategy to better understand, observe and simulate urban atmospheric processes at kilometre to sub-kilometre scales, *Bull. American Meteorol. Soc.*, **98**, ES261–ES264.

65. Heusinkveld, B.G., G. Sterenborg, **G.J. Steeneveld**, J.J. Attema, R.J. Ronda, A.A.M. Holtslag, 2017: Smartphone App brings human thermal comfort forecast in your hands, *Bulletin of the American Meteorological Soc.*, **98**, 2533–2541.
66. **Steeneveld, G.J.**, M. de Bode, 2018: Unravelling the relative roles of physical processes in modelling the life cycle of a warm radiation fog, *Quart. J. Roy. Meteorol. Soc.*, **144**, 1539-1554.
67. Kramer, M., D. Heinzeller, H. Hartmann, W. van den Berg, **G.J. Steeneveld**, 2018: Numerical Weather Prediction in the grey zone using a global variable resolution mesh and scale-aware convection parameterisation using MPAS -An MPAS feasibility study of three extreme weather events in Europe, *Clim. Dyn.*, in press.
68. Droste, A.M., **G.J. Steeneveld**, A.A.M. Holtslag, 2018: Introducing the urban wind island effect, *Env. Res. Letters*, **13**, 094007.
69. Kalverla, P., **G.J. Steeneveld**, R.J. Ronda, A.A.M. Holtslag, 2019: Evaluation of three mainstream numerical weather prediction models with observations from meteorological mast IJmuiden at the North Sea, *Wind Energy*, **22**, 34-48. doi: 10.1002/we.2267.
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71. **Steeneveld, G.J.** and J. Vilà, 2019: Teaching Atmospheric Modelling at academia: 15 years experience with WRF in an active learning environment, *Bull. Amer. Meteorol. Soc.* In press.
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85. Coppa, G., A. Quarello, G.J. Steeneveld, N. Jandric, A. Merlone, 2019: Metrological evaluation of the effect of the presence of roads on near-surface air temperature measurements, *submitted*,
86. Zhang, X., Gert-Jan Steeneveld, Dian Zhou, Reinder J. Ronda, Chengjiang Duan, Sytse Koopmans, and Albert A.M. Holtslag, 2019: Modelling urban meteorology with increasing refinements for the complex morphology of a typical Chinese city Xi'an, *Building and Environ.*, *submitted*.
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90. Galen, L. van, O.K. Hartogensis, I.B. Benedict, G.J. Steeneveld, 2020: Teaching Weather Class in the 2020s, *in prep*,

### **Reports**

Steeneveld, G.J., 2002: ‘*On photosynthesis parameters for the A-gs surface scheme for high vegetation*’, Technical report TR-242, Royal Netherlands Meteorological Institute, De Bilt, The Netherlands.

Klok, E.J., S. Schaminee, J. Duyzer, **G.J. Steeneveld**, 2012: *De stedelijke hitte-eilanden van Nederland in kaart gebracht met satellietbeelden*. Report TNO-060-UT-2012-01117, Netherlands, 28 p.

### **Chapter in book**

1. Holtslag, A.A.M., and **G. J. Steeneveld**, 2009: Single Column Modeling of Atmospheric Boundary Layers and the Complex Interactions with the Land Surface, *Encl. of Complexity and Systems Science*, **19**, 8139-8153.
2. **G.J. Steeneveld**, A.A.M. Holtslag, 2009: Meteorological Aspects of Air Quality, in *Air Quality in the 21st Century*, Eds: G.C. Romano, and A.G. Conti, pp 67-114.

3. Holtslag, A.A.M., and **G.J. Steeneveld**, 2011: Column Modeling of Atmospheric Boundary Layers and the Complex Interactions with the Land Surface, *Extreme Environmental Events*, p. 844-857.
4. **G.J. Steeneveld**, 2011: *Stable boundary layer issues*, Proceedings workshop on Diurnal cycles and the stable atmospheric boundary layer, ECMWF, 7-10 Nov 2011, Reading, UK.

### **Popular Scientific**

Steeneveld, Gert-Jan, Bas van de Wiel, Jordi Vilà-Guerau de Arellano en Bert Holtslag, 2003: ‘In het holst van de nacht..., Evaluatie van een mesoschaalmodel voor de stabiele grenslaag boven land’, *Meteorologica*, **12** (2), 14-20. (In Dutch).

Holtslag, A.A.M., G.J. Steeneveld, A.F. Moene and B.J.H van de Wiel, 2005: Turbulente nachten in het klimaat, *Meteorologica*, **14**(1), 10-13 (in Dutch).

Steeneveld, G.J., B.J.H van de Wiel and A.A.M. Holtslag, 2005: Recordnacht: mist laat model in de kou staan, *Meteorologica*, **14**(2), 33-36 (in Dutch).

Velde, I.R., van der, G.J. Steeneveld, B. Wijchers Schreur, B. Holtslag, 2009: Problemen met mistverwachtingen ten behoeve van de luchtvaart: een case study. *Meteorologica*, **18**, (3), 16-19.

Steeneveld, G.J., S. Koopmans, B.G. Heusinkveld, L.W.A. van Hove, and A.A.M. Holtslag, 2012: Het warmte-eiland effect en thermisch comfort in Nederlandse steden, *Meteorologica*, **21** (1), 13-18. In Dutch.

Sytse Koopmans, Natalie Theeuwes, Gert-Jan Steeneveld, and Bert Holtslag 2012: De invloed van urbanisatie op de meetreeks van de De Bilt, *Meteorologica*, **21** (2), 9-14. In Dutch.

Anna Solcerová, Natalie Theeuwes en Gert-Jan Steeneveld, 2012: De invloed van waterpartijen op het stedelijk warmte-eiland effect en thermisch comfort – een mesoschaal model studie, *Meteorologica*, **21** (4), 19-21. In Dutch.

Muntjewerf, L., G.J. Steeneveld, 2014: Het onverwachte warme winterweekend van 8 en 9 maart 2014 in Nederland, *Meteorologica*, **23** (4), 12-15. In Dutch.

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### **ATTENDED COURSES**

- 2003 “*Techniques for writing and presenting a scientific paper*”, prof. M. Grossmann, PHLO, Wageningen.
- 2003 “*Mathematical techniques and tools for data analysis and modelling of intermittent structures*”, prof. F.T.M. Nieuwstadt, Lorentz Centre, Leiden, The Netherlands.
- 2003 “*Advising and organizing a MSc thesis*”, Education Support Wageningen Univ. Wageningen, The Netherlands.
- 2004 “*Spatial Statistics*”, Wageningen University, The Netherlands.
- 2004 “*Parameterisation of diabatic processes*” at the European Centre for Medium Range Weather Forecasts (ECMWF), Reading, United Kingdom.
- 2004 “*Environmental Stably Stratified Flows*” at the International Centre for Mechanical Sciences (CISM), Udine, Italy.
- 2005 “*Oral lecturing*”, Education Support Wageningen University, Wageningen, The Netherlands.
- 2005 Large Eddy Simulation course, intern course at Wageningen University.
- 2005 “*Summer school on Boundary Layers over complex and vegetated terrain*” at the Finnish Meteorological Institute, Sodankyla, Finland.
- 2008 “*Summer school on Atmos. Boundary Layers*”, Les Houches, France.
- 2009 “*Examination*”, Education Support Wageningen Univ., Wageningen, The Netherlands.
- 2011 “*General Didactics*”, Education Support Wageningen Univ., Wageningen, The Netherlands.

## **TEACHING EXPERIENCE**

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2013 Qualified University Teacher (UTQ)/Basiskwalificatie Onderwijs (BKO)

*Courses:*

- 2002 - Teacher and coordination for “Meteorology and Climate”  
2008 - Teacher and coordinator Mesoscale Meteorological Modelling/Atmospheric Modelling  
2009, 2013 Tutor Academic Consultancy Training  
2011, 2013 Fluid Mechanics.  
2016 - Teacher and coordinator Urban Hydrometeorology  
2016 - Teacher Climate Responsive Planning and Design.  
2017 - Teacher and Coordinator Atmospheric Practical

2016, 2017: Teacher Wageningen Academy course on Climate Responsive Cities.

*BSc thesis advisor: 14*

*MSc thesis advisor: 32*

## **MISCELLANEOUS**

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|                       |                    |  |
|-----------------------|--------------------|--|
| Languages:            | English and Dutch: | Fluent   |
|                       | French             | Basic skills   |
| Computer skills:      | Experience with:   | Microsoft Office, Unix, Matlab, Fortran, Mathcad, Mathematica, SPSS, Adobe Acrobat, IDL, NCL |
| Driving ability:      | Driving license B  |  |
| Interest and hobbies: |                    | Biking, spinning, movies, reading, spending time with family and friends                     |