G-J Steeneveld

List of Publications by Year
in descending order

104 papers	5,628 citations	94269 37 h-index	82410 72 g-index
135 all docs	135 docs citations	135 times ranked	4787 citing authors

#	Article	IF	Citations
1	The International Urban Energy Balance Models Comparison Project: First Results from Phase 1. Journal of Applied Meteorology and Climatology, 2010, 49, 1268-1292.	0.6	397
2	Stable Atmospheric Boundary Layers and Diurnal Cycles: Challenges for Weather and Climate Models. Bulletin of the American Meteorological Society, 2013, 94, 1691-1706.	1.7	362
3	Initial results from Phase 2 of the international urban energy balance model comparison. International Journal of Climatology, 2011, 31, 244-272.	1.5	284
4	Single-Column Model Intercomparison for a Stably Stratified Atmospheric Boundary Layer. Boundary-Layer Meteorology, 2006, 118, 273-303.	1.2	278
5	Refreshing the role of open water surfaces on mitigating the maximum urban heat island effect. Landscape and Urban Planning, 2014, 121, 92-96.	3.4	237
6	Quantifying urban heat island effects and human comfort for cities of variable size and urban morphology in the Netherlands. Journal of Geophysical Research, 2011, 116, .	3.3	220
7	Modeling the influence of open water surfaces on the summertime temperature and thermal comfort in the city. Journal of Geophysical Research D: Atmospheres, 2013, 118, 8881-8896.	1.2	174
8	Crowdsourcing urban air temperatures from smartphone batteryâ€‰temperatures. Geophysical Research Letters, 2013, 40, 4081-4085.	1.5	161
9	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, 2011, 140, 177-206.	1.2	158
10	A Conceptual View on Inertial Oscillations and Nocturnal Low-Level Jets. Journals of the Atmospheric Sciences, 2010, 67, 2679-2689.	0.6	156
11	The BLLAST field experiment: Boundary-Layer Late Afternoon and Sunset Turbulence. Atmospheric Chemistry and Physics, 2014, 14, 10931-10960.	1.9	151
12	Spatial variability of the Rotterdam urban heat island as influenced by urban land use. Journal of Geophysical Research D: Atmospheres, 2014, 119, 677-692.	1.2	115
13	The Challenge of Forecasting the Onset and Development of Radiation Fog Using Mesoscale Atmospheric Models. Boundary-Layer Meteorology, 2015, 154, 265-289.	1.2	114
14	Exploring Self-Correlation in Fluxâ€"Gradient Relationships for Stably Stratified Conditions. Journals of the Atmospheric Sciences, 2006, 63, 3045-3054.	0.6	108
15	Modeling the Evolution of the Atmospheric Boundary Layer Coupled to the Land Surface for Three Contrasting Nights in CASES-99. Journals of the Atmospheric Sciences, 2006, 63, 920-935.	0.6	107
16	Modeling and Forecasting the Onset and Duration of Severe Radiation Fog under Frost Conditions. Monthly Weather Review, 2010, 138, 4237-4253.	0.5	106
17	Evaluation of the Weather Research and Forecasting Mesoscale Model for GABLS3: Impact of Boundary-Layer Schemes, Boundary Conditions and Spin-Up. Boundary-Layer Meteorology, 2014, 152, 213-243.	1.2	105
18	Evaluation of Limited-Area Models for the Representation of the Diurnal Cycle and Contrasting Nights in CASES-99. Journal of Applied Meteorology and Climatology, 2008, 47, 869-887.	0.6	102

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19	An inconvenient â€œtruthâ€•about using sensible heat flux as a surface boundary condition in models under stably stratified regimes. Acta Geophysica, 2008, 56, 88-99.	1.0	92
20	Seasonal dependence of the urban heat island on the street canyon aspect ratio. Quarterly Journal of the Royal Meteorological Society, 2014, 140, 2197-2210.	1.0	90
21	The Third GABLS Intercomparison Case for Evaluation Studies of Boundary-Layer Models. Part B: Results and Process Understanding. Boundary-Layer Meteorology, 2014, 152, 157-187.	1.2	83
22	A diagnostic equation for the daily maximum urban heat island effect for cities in northwestern Europe. International Journal of Climatology, 2017, 37, 443-454.	1.5	75
23	Forecasting radiation fog at climatologically contrasting sites: evaluation of statistical methods and WRF. Quarterly Journal of the Royal Meteorological Society, 2016, 142, 1048-1063.	1.0	69
24	Predicting the Collapse of Turbulence in Stably Stratified Boundary Layers. Flow, Turbulence and Combustion, 2007, 79, 251-274.	1.4	67
25	Response and sensitivity of the nocturnal boundary layer over land to added longwave radiative forcing. Journal of Geophysical Research, 2012, 117, .	3.3	66
26	The role of snowâ€surface coupling, radiation, and turbulent mixing in modeling a stable boundary layer over Arctic sea ice. Journal of Geophysical Research D: Atmospheres, 2013, 118, 1199-1217.	1.2	63
27	Exploring the Possible Role of Small-Scale Terrain Drag on Stable Boundary Layers over Land. Journal of Applied Meteorology and Climatology, 2008, 47, 2518-2530.	0.6	56
28	Cool city mornings by urban heat. Environmental Research Letters, 2015, 10, 114022.	2.2	55
29	Low-level jets over the North Sea based on ERA5 and observations: together they do better. Wind Energy Science, 2019, 4, 193-209.	1.2	53
30	Diagnostic Equations for the Stable Boundary Layer Height: Evaluation and Dimensional Analysis. Journal of Applied Meteorology and Climatology, 2007, 46, 212-225.	0.6	50
31	Urban Finescale Forecasting Reveals Weather Conditions with Unprecedented Detail. Bulletin of the American Meteorological Society, 2017, 98, 2675-2688.	1.7	47
32	Observations of the radiation divergence in the surface layer and its implication for its parameterization in numerical weather prediction models. Journal of Geophysical Research, 2010, 115, .	3.3	46
33	Innovative Strategies for Observations in the Arctic Atmospheric Boundary Layer (ISOBAR)â€"The Hailuoto 2017 Campaign. Atmosphere, 2018, 9, 268.	1.0	45
34	The Third GABLS Intercomparison Case for Evaluation Studies of Boundary-Layer Models. Part A: Case Selection and Set-Up. Boundary-Layer Meteorology, 2014, 152, 133-156.	1.2	44
35	Select strengths and biases of models in representing the Arctic winter boundary layer over sea ice: the Larcform 1 single column model intercomparison. Journal of Advances in Modeling Earth Systems, 2016, 8, 1345-1357.	1.3	43
36	Developing a Research Strategy to Better Understand, Observe, and Simulate Urban Atmospheric Processes at Kilometer to Subkilometer Scales. Bulletin of the American Meteorological Society, 2017, 98, ES261-ES264.	1.7	40

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37	Crowdsourcing Urban Air Temperatures through Smartphone Battery Temperatures in SÃ£o Paulo, Brazil. Journal of Atmospheric and Oceanic Technology, 2017, 34, 1853-1866.	0.5	39
38	Modelling the Arctic Stable Boundary Layer and its Coupling to the Surface. Boundary-Layer Meteorology, 2006, 118, 357-378.	1.2	38
39	Current challenges in understanding and forecasting stable boundary layers over land and ice. Frontiers in Environmental Science, 2014, 2, .	1.5	38
40	Modelling regional scale surface fluxes, meteorology and CO₂ mixing ratios for the Cabauw tower in the Netherlands. Biogeosciences, 2009, 6, 2265-2280.	1.3	38
41	Confronting the WRF and RAMS mesoscale models with innovative observations in the Netherlands: Evaluating the boundary layer heat budget. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	37
42	WRF Model Prediction of a Dense Fog Event Occurred During the Winter Fog Experiment (WIFEX). Pure and Applied Geophysics, 2019, 176, 1827-1846.	0.8	37
43	Direct observations of CO2 emission reductions due to COVID-19 lockdown across European urban districts. Science of the Total Environment, 2022, 830, 154662.	3.9	37
44	Unravelling the relative roles of physical processes in modelling the life cycle of a warm radiation fog. Quarterly Journal of the Royal Meteorological Society, 2018, 144, 1539-1554.	1.0	36
45	Introducing the urban wind island effect. Environmental Research Letters, 2018, 13, 094007.	2.2	36
46	Role of land-surface temperature feedback on model performance for the stable boundary layer. Boundary-Layer Meteorology, 2007, 125, 361-376.	1.2	33
47	Some Observational Evidence for Dry Soils Supporting Enhanced Relative Humidity at the Convective Boundary Layer Top. Journal of Hydrometeorology, 2012, 13, 1347-1358.	0.7	31
48	An observational climatology of anomalous wind events at offshore meteomast IJmuiden (North Sea). Journal of Wind Engineering and Industrial Aerodynamics, 2017, 165, 86-99.	1.7	31
49	Evaluation of the Weather Research and Forecasting Model in the Durance Valley Complex Terrain during the KASCADE Field Campaign. Journal of Applied Meteorology and Climatology, 2016, 55, 861-882.	0.6	30
50	Interactions among drainage flows, gravity waves and turbulence: a BLLAST case study. Atmospheric Chemistry and Physics, 2015, 15, 9031-9047.	1.9	29
51	An urban climate assessment and management tool for combined heat and air quality judgements at neighbourhood scales. Resources, Conservation and Recycling, 2018, 132, 204-217.	5.3	29
52	Hydrometeorological Monitoring Using Opportunistic Sensing Networks in the Amsterdam Metropolitan Area. Bulletin of the American Meteorological Society, 2020, 101, E167-E185.	1.7	29
53	Quality of wind characteristics in recent wind atlases over the North Sea. Quarterly Journal of the Royal Meteorological Society, 2020, 146, 1498-1515.	1.0	29
54	Clearâ€sky stable boundary layers with low winds over snowâ€covered surfaces. Part 1: WRF model evaluation. Quarterly Journal of the Royal Meteorological Society, 2015, 141, 2165-2184.	1.0	28

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55	Assessing the potential and application of crowdsourced urban wind data. Quarterly Journal of the Royal Meteorological Society, 2020, 146, 2671-2688.	1.0	28
56	Surface Temperature and Surface-Layer Turbulence in a Convective Boundary Layer. Boundary-Layer Meteorology, 2013, 148, 51-72.	1.2	26
57	Smallâ€scale orographic gravity wave drag in stable boundary layers and its impact on synoptic systems and nearâ€surface meteorology. Quarterly Journal of the Royal Meteorological Society, 2017, 143, 1504-1516.	1.0	25
58	A diagnostic equation for the maximum urban heat island effect of a typical Chinese city: A case study for Xi'an. Building and Environment, 2019, 158, 39-50.	3.0	25
59	Mesoscale modeling of lake effect snow over Lake Erie â€" sensitivity to convection, microphysics and the water temperature. Advances in Science and Research, 2010, 4, 15-22.	1.0	25
60	Radiation and cloud-base lowering fog events: Observational analysis and evaluation of WRF and HARMONIE. Atmospheric Research, 2019, 229, 190-207.	1.8	23
61	The Innovative Strategies for Observations in the Arctic Atmospheric Boundary Layer Project (ISOBAR): Unique Finescale Observations under Stable and Very Stable Conditions. Bulletin of the American Meteorological Society, 2021, 102, E218-E243.	1.7	23
62	A standardized Physical Equivalent Temperature urban heat map at 1-m spatial resolution to facilitate climate stress tests in the Netherlands. Building and Environment, 2020, 181, 106984.	3.0	22
63	Projection of rural and urban human thermal comfort in The Netherlands for 2050. International Journal of Climatology, 2016, 36, 1708-1723.	1.5	21
64	Understanding the dissipation of continental fog by analysing the LWP budget using idealized LES and <i>in situ</i> observations. Quarterly Journal of the Royal Meteorological Society, 2019, 145, 784-804.	1.0	20
65	Estimating fog-top height through near-surface micrometeorological measurements. Atmospheric Research, 2016, 170, 76-86.	1.8	17
66	Fluxes and Gradients in the Convective Surface Layer and the Possible Role of Boundary-Layer Depth and Entrainment Flux. Boundary-Layer Meteorology, 2005, 116, 237-252.	1.2	15
67	Estimation of orographically induced wave drag in the stable boundary layer during the CASES-99 experimental campaign. Acta Geophysica, 2009, 57, 857-881.	1.0	15
68	Quantifying the Effect of Different Urban Planning Strategies on Heat Stress for Current and Future Climates in the Agglomeration of The Hague (The Netherlands). Atmosphere, 2018, 9, 353.	1.0	15
69	Evaluation of three mainstream numerical weather prediction models with observations from meteorological mast IJmuiden at the North Sea. Wind Energy, 2019, 22, 34-48.	1.9	15
70	Assessment of MPAS variable resolution simulations in the grey-zone of convection against WRF model results and observations. Climate Dynamics, 2020, 55, 253-276.	1.7	15
71	Screen level temperature increase due to higher atmospheric carbon dioxide in calm and windy nights revisited. Journal of Geophysical Research, 2011, 116, .	3.3	14
72	Offshore Wind Energy Analysis of Cyclone Xaver over North Europe. Energy Procedia, 2016, 94, 37-44.	1.8	14

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73	Evaluation of the WRF Model to Simulate a High-Intensity Rainfall Event over Kampala, Uganda. Water (Switzerland), 2021, 13, 873.	1.2	14
74	Demistify: a large-eddy simulation (LES) and single-column model (SCM) intercomparison of radiation fog. Atmospheric Chemistry and Physics, 2022, 22, 319-333.	1.9	14
75	Observational Support for the Stability Dependence of the Bulk Richardson Number Across the Stable Boundary Layer. Boundary-Layer Meteorology, 2014, 150, 515-523.	1.2	13
76	Modelling urban meteorology with increasing refinements for the complex morphology of a typical Chinese city (Xi'an). Building and Environment, 2020, 182, 107109.	3.0	13
77	Comments on â€œAn Extremum Solution of the Moninâ€“Obukhov Similarity Equationsâ€. Journals of the Atmospheric Sciences, 2011, 68, 1405-1408.	0.6	12
78	Downscaling daily air-temperature measurements in the Netherlands. Theoretical and Applied Climatology, 2020, 142, 751-767.	1.3	12
79	Modelling the influence of urbanization on the 20th century temperature record of weather station De Bilt (The Netherlands). International Journal of Climatology, 2015, 35, 1732-1748.	1.5	11
80	Clearâ€sky stable boundary layers with low winds over snowâ€covered surfaces. Part 2: Process sensitivity. Quarterly Journal of the Royal Meteorological Society, 2016, 142, 821-835.	1.0	11
81	Smartphone App Brings Human Thermal Comfort Forecast in Your Hands. Bulletin of the American Meteorological Society, 2017, 98, 2533-2541.	1.7	11
82	Analysis of urban rainfall from hourly to seasonal scales using highâ€resolution radar observations in the Netherlands. International Journal of Climatology, 2020, 40, 822-840.	1.5	11
83	Metrological evaluation of the effect of the presence of a road on nearâ€surface air temperatures. International Journal of Climatology, 2021, 41, 3705-3724.	1.5	9
84	Spatiotemporal variability of marine renewable energy resources in Norway. Energy Procedia, 2017, 125, 180-189.	1.8	8
85	Coupling between radiative flux divergence and turbulence near the surface. Quarterly Journal of the Royal Meteorological Society, 2018, 144, 2491-2507.	1.0	8
86	Onâ€and offâ€line evaluation of the singleâ€layer urban canopy model in London summertime conditions. Quarterly Journal of the Royal Meteorological Society, 2019, 145, 1474-1489.	1.0	8
87	Interactions Between the Nocturnal Low-Level Jets and the Urban Boundary Layer: A Case Study over London. Boundary-Layer Meteorology, 2022, 183, 249-272.	1.2	8
88	Comments on deriving the equilibrium height of the stable boundary layer. Quarterly Journal of the Royal Meteorological Society, 2007, 133, 261-264.	1.0	7
89	The Potential of a Smartphone as an Urban Weather Stationâ€"An Exploratory Analysis. Frontiers in Environmental Science, 2021, 9, .	1.5	7
90	Role of land-surface temperature feedback on model performance for the stable boundary layer. , 2007, , 205-220.		6

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91	Modelling the re-intensification of tropical storm Erin (2007) over Oklahoma: understanding the key role of downdraft formulation. Tellus, Series A: Dynamic Meteorology and Oceanography, 2012, 64, 17417.	0.8	6
92	Teaching Atmospheric Modeling at the Graduate Level: 15 Years of Using Mesoscale Models as Educational Tools in an Active Learning Environment. Bulletin of the American Meteorological Society, 2019, 100, 2157-2174.	1.7	6
93	Mesoscale Model Simulation of a Severe Summer Thunderstorm in The Netherlands: Performance and Uncertainty Assessment for Parameterised and Resolved Convection. Atmosphere, 2020, 11, 811.	1.0	5
94	Role of oceanic ozone deposition in explaining temporal variability in surface ozone at High Arctic sites. Atmospheric Chemistry and Physics, 2021, 21, 10229-10248.	1.9	5
95	Evaluation of onset, cessation and seasonal precipitation of the Southeast Asia rainy season in <scp>CMIP5</scp> regional climate models and <scp>HighResMIP</scp> global climate models. International Journal of Climatology, 2022, 42, 3007-3024.	1.5	5
96	Urban Water Storage Capacity Inferred From Observed Evapotranspiration Recession. Geophysical Research Letters, 2022, 49, .	1.5	5
97	Summer in the City: Forecasting and Mapping Human Thermal Comfort in Urban Areas. , 2015, , .		3
98	Single Column Modeling of Atmospheric Boundary Layers and the Complex Interactions with the Land Surface. , 2011, , 844-857.		2
99	Weather Reanalysis on an Urban Scale using WRF. , 2018, , .		1
100	Opportunistic Sensing Networks: A Study in Amsterdam. Bulletin of the American Meteorological Society, 2020, 101, 313-318.	1.7	1
101	The stable atmospheric boundary layer over snowâ€covered sea ice: Model evaluation with fineâ€scale ISOBAR18 observations. Quarterly Journal of the Royal Meteorological Society, 2022, 148, 2031-2046.	1.0	1
102	Surface and Atmospheric Driven Variability of the Singleâ€Layer Urban Canopy Model Under Clearâ€Sky Conditions Over London. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2019JD032167.	1.2	0
103	Teaching a Weather Forecasting Class in the 2020s. Bulletin of the American Meteorological Society, 2021, , 1-41.	1.7	0
104	Using an Artificial Neural Network to improve operational wind prediction in a small unresolved valley. Weather and Forecasting, 2021, , .	0.5	0