

Stefan Emeis

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151
papers

2,978
citations

32
h-index

49
g-index

204
ext. papers

3,457
ext. citations

2.7
avg, IF

5.49
L-index

#	Paper	IF	Citations
151	Application of a multiscale, coupled MM5/chemistry model to the complex terrain of the VOTALP valley campaign. <i>Atmospheric Environment</i> , 2000 , 34, 1435-1453	5.3	168
150	Surface-based remote sensing of the mixing-layer height a review. <i>Meteorologische Zeitschrift</i> , 2008 , 17, 621-630	3.1	167
149	Atmospheric boundary-layer structure from simultaneous SODAR, RASS, and ceilometer measurements. <i>Atmospheric Environment</i> , 2004 , 38, 273-286	5.3	131
148	Secondary effects of urban heat island mitigation measures on air quality. <i>Atmospheric Environment</i> , 2016 , 125, 199-211	5.3	105
147	Process-based modelling of isoprene emission by oak leaves. <i>Plant, Cell and Environment</i> , 2000 , 23, 585-595	5.5	99
146	Air Pollution Transport in an Alpine Valley: Results From Airborne and Ground-Based Observations. <i>Boundary-Layer Meteorology</i> , 2009 , 131, 441-463	3.4	79
145	First in situ evidence of wakes in the far field behind offshore wind farms. <i>Scientific Reports</i> , 2018 , 8, 2163	4.9	78
144	Influence of mixing layer height upon air pollution in urban and sub-urban areas. <i>Meteorologische Zeitschrift</i> , 2006 , 15, 647-658	3.1	74
143	Remote Sensing Methods to Investigate Boundary-layer Structures relevant to Air Pollution in Cities. <i>Boundary-Layer Meteorology</i> , 2006 , 121, 377-385	3.4	74
142	The dependence of offshore turbulence intensity on wind speed. <i>Journal of Wind Engineering and Industrial Aerodynamics</i> , 2010 , 98, 466-471	3.7	67
141	Multiple atmospheric layering and mixing-layer height in the Inn valley observed by remote sensing. <i>Meteorologische Zeitschrift</i> , 2007 , 16, 415-424	3.1	67
140	Revisiting the Definition of the Drag Coefficient in the Marine Atmospheric Boundary Layer. <i>Journal of Physical Oceanography</i> , 2010 , 40, 2325-2332	2.4	66
139	Boundary-layer anemometry by optical remote sensing for wind energy applications. <i>Meteorologische Zeitschrift</i> , 2007 , 16, 337-347	3.1	66
138	Nocturnal secondary ozone concentration maxima analysed by sodar observations and surface measurements. <i>Atmospheric Environment</i> , 2000 , 34, 4315-4329	5.3	66
137	Measurement and simulation of the 16/17 April 2010 Eyjafjallajökull volcanic ash layer dispersion in the northern Alpine region. <i>Atmospheric Chemistry and Physics</i> , 2011 , 11, 2689-2701	6.8	63
136	Mixing layer height over Munich, Germany: Variability and comparisons of different methodologies. <i>Journal of Geophysical Research</i> , 2006 , 111,		63
135	A simple analytical wind park model considering atmospheric stability. <i>Wind Energy</i> , 2009 , 13, 459-469	3.4	57

134	Simultaneous multicopter-based air sampling and sensing of meteorological variables. <i>Atmospheric Measurement Techniques</i> , 2017 , 10, 2773-2784	4	50
133	Correlation of aerosol mass near the ground with aerosol optical depth during two seasons in Munich. <i>Atmospheric Environment</i> , 2008 , 42, 4036-4046	5.3	50
132	The surface energy balance and the mixing height in urban areas—activities and recommendations of COST-Action 715. <i>Boundary-Layer Meteorology</i> , 2007 , 124, 3-24	3.4	48
131	The VOTALP Mesolcina Valley Campaign 1996—concept, background and some highlights. <i>Atmospheric Environment</i> , 2000 , 34, 1395-1412	5.3	46
130	Wind Energy Meteorology. <i>Green Energy and Technology</i> , 2013 ,	0.6	46
129	Current issues in wind energy meteorology. <i>Meteorological Applications</i> , 2014 , 21, 803-819	2.1	42
128	The SCALEX Campaign: Scale-Crossing Land Surface and Boundary Layer Processes in the TERENO-preAlpine Observatory. <i>Bulletin of the American Meteorological Society</i> , 2017 , 98, 1217-1234	6.1	41
127	Reduction of horizontal wind speed in a boundary layer with obstacles. <i>Boundary-Layer Meteorology</i> , 1993 , 64, 297-305	3.4	40
126	Observation of the structure of the urban boundary layer with different ceilometers and validation by RASS data. <i>Meteorologische Zeitschrift</i> , 2009 , 18, 149-154	3.1	39
125	Influences of the 2010 Eyjafjallajökull volcanic plume on air quality in the northern Alpine region. <i>Atmospheric Chemistry and Physics</i> , 2011 , 11, 8555-8575	6.8	37
124	Surface-Based Remote Sensing of the Atmospheric Boundary Layer. <i>Atmospheric and Oceanographic Sciences Library</i> , 2011 ,		36
123	Wind and turbulence in the urban boundary layer analysis from acoustic remote sensing data and fit to analytical relations. <i>Meteorologische Zeitschrift</i> , 2007 , 16, 393-406	3.1	36
122	Modification of air flow over an escarpment—Results from the Hjärdemö experiment. <i>Boundary-Layer Meteorology</i> , 1995 , 74, 131-161	3.4	35
121	Frequency distributions of the mixing height over an urban area from SODAR data. <i>Meteorologische Zeitschrift</i> , 2004 , 13, 361-367	3.1	33
120	Wind Energy Meteorology. <i>Green Energy and Technology</i> , 2018 ,	0.6	32
119	Characteristics and sources of PM in seasonal perspective—A case study from one year continuously sampling in Beijing. <i>Atmospheric Pollution Research</i> , 2016 , 7, 235-248	4.5	29
118	Micrometeorological impacts of offshore wind farms as seen in observations and simulations. <i>Environmental Research Letters</i> , 2018 , 13, 124012	6.2	29
117	Evaluation of the Interpretation of Ceilometer Data with RASS and Radiosonde Data. <i>Boundary-Layer Meteorology</i> , 2012 , 143, 25-35	3.4	27

116	Wind speed and shear associated with low-level jets over Northern Germany. <i>Meteorologische Zeitschrift</i> , 2014 , 23, 295-304	3.1	25
115	Developing a Research Strategy to Better Understand, Observe, and Simulate Urban Atmospheric Processes at Kilometer to Subkilometer Scales. <i>Bulletin of the American Meteorological Society</i> , 2017 , 98, ES261-ES264	6.1	24
114	Aerosol optical depth, aerosol composition and air pollution during summer and winter conditions in Budapest. <i>Science of the Total Environment</i> , 2007 , 383, 141-63	10.2	22
113	Remote sensing winds in complex terrain: A review. <i>Meteorologische Zeitschrift</i> , 2015 , 24, 547-555	3.1	22
112	Evaluation of a Wind Farm Parametrization for Mesoscale Atmospheric Flow Models with Aircraft Measurements. <i>Meteorologische Zeitschrift</i> , 2018 , 27, 401-415	3.1	22
111	Chemical characteristics of PM 2.5 during haze episodes in spring 2013 in Beijing. <i>Urban Climate</i> , 2017 , 22, 51-63	6.8	21
110	Offshore wind farm wake recovery: Airborne measurements and its representation in engineering models. <i>Wind Energy</i> , 2020 , 23, 1249-1265	3.4	20
109	A Comparison Between Modelled and Measured Mixing-Layer Height Over Munich. <i>Boundary-Layer Meteorology</i> , 2009 , 131, 425-440	3.4	20
108	High resolution climate projections to assess the future vulnerability of European urban areas to climatological extreme events. <i>Theoretical and Applied Climatology</i> , 2017 , 127, 667-683	3	19
107	Wind-driven wave heights in the German Bight. <i>Ocean Dynamics</i> , 2009 , 59, 463-475	2.3	19
106	Turbulent kinetic energy over large offshore wind farms observed and simulated by the mesoscale model WRF (3.8.1). <i>Geoscientific Model Development</i> , 2020 , 13, 249-268	6.3	19
105	Vertical wind profiles over an urban area. <i>Meteorologische Zeitschrift</i> , 2004 , 13, 353-359	3.1	18
104	Vertical variation of frequency distributions of wind speed in and above the surface layer observed by sodar. <i>Meteorologische Zeitschrift</i> , 2001 , 10, 141-149	3.1	18
103	Determination of mixing layer heights from ceilometer data 2004 , 5571, 248		17
102	Pressure drag and effective roughness length with neutral stratification. <i>Boundary-Layer Meteorology</i> , 1987 , 39, 379-401	3.4	17
101	Assessing the meteorological conditions of a deep Italian Alpine valley system by means of a measuring campaign and simulations with two models during a summer smog episode. <i>Atmospheric Environment</i> , 2001 , 35, 5441-5454	5.3	16
100	Flow over an embankment: Speed-up and pressure perturbation. <i>Boundary-Layer Meteorology</i> , 1993 , 63, 163-182	3.4	15
99	Long-range modifications of the wind field by offshore wind parks: Results of the project WIPAFF. <i>Meteorologische Zeitschrift</i> , 2020 , 29, 355-376	3.1	15

98	Urban Climate Under Change [UC]2 TA National Research Programme for Developing a Building-Resolving Atmospheric Model for Entire City Regions. <i>Meteorologische Zeitschrift</i> , 2019 , 28, 95-104	3.1	14
97	Aerosol concentration measurements with a lidar ceilometer: results of a one year measuring campaign 2004 , 5235, 486		14
96	Pressure Drag of Obstacles in the Atmospheric Boundary Layer. <i>Journal of Applied Meteorology and Climatology</i> , 1990 , 29, 461-476		14
95	Seasonal variability and source distribution of haze particles from a continuous one-year study in Beijing. <i>Atmospheric Pollution Research</i> , 2018 , 9, 627-633	4.5	13
94	Waterspouts over the North and Baltic Seas: Observations and climatology, prediction and reporting. <i>Meteorologische Zeitschrift</i> , 2010 , 19, 115-129	3.1	13
93	Detection of pollution transport events southeast of Mexico City using ground-based visible spectroscopy measurements of nitrogen dioxide. <i>Atmospheric Chemistry and Physics</i> , 2009 , 9, 4827-4840	6.8	13
92	Exploring the wakes of large offshore wind farms. <i>Journal of Physics: Conference Series</i> , 2016 , 753, 092014	1.3	13
91	A Method for Increasing the Turbulent Kinetic Energy in the Mellor Yamada Kanji Boundary-Layer Parametrization. <i>Boundary-Layer Meteorology</i> , 2012 , 145, 329-349	3.4	12
90	A year of H2 measurements at Weybourne Atmospheric Observatory, UK. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 2012 , 64, 17771	3.3	12
89	Development of Emission Models and Improvement of Emission Data for Germany. <i>Journal of Atmospheric Chemistry</i> , 2002 , 42, 179-206	3.2	12
88	High-Resolution Observations of Transport and Exchange Processes in Mountainous Terrain. <i>Atmosphere</i> , 2018 , 9, 457	2.7	12
87	Three-Dimensional Observation of Atmospheric Processes in Cities. <i>Meteorologische Zeitschrift</i> , 2019 , 28, 121-138	3.1	11
86	Atmospheric influences and local variability of air pollution close to a motorway in an Alpine valley during winter. <i>Meteorologische Zeitschrift</i> , 2008 , 17, 297-309	3.1	11
85	In situ airborne measurements of atmospheric and sea surface parameters related to offshore wind parks in the German Bight. <i>Earth System Science Data</i> , 2020 , 12, 935-946	10.5	10
84	Impact of meteorological conditions on airborne fine particle composition and secondary pollutant characteristics in urban area during winter-time. <i>Meteorologische Zeitschrift</i> , 2016 , 25, 267-279	3.1	10
83	Observational techniques to assist the coupling of CWE/CFD models and meso-scale meteorological models. <i>Journal of Wind Engineering and Industrial Aerodynamics</i> , 2015 , 144, 24-30	3.7	9
82	Upper limit for wind shear in stably stratified conditions expressed in terms of a bulk Richardson number. <i>Meteorologische Zeitschrift</i> , 2017 , 26, 421-430	3.1	9
81	Areal-averaged trace gas emission rates from long-range open-path measurements in stable boundary layer conditions. <i>Atmospheric Measurement Techniques</i> , 2012 , 5, 1571-1583	4	9

80	Examples for the determination of turbulent (sub-synoptic) fluxes with inverse methods. <i>Meteorologische Zeitschrift</i> , 2008 , 17, 3-11	3.1	9
79	Development and validation of tools for the implementation of european air quality policy in Germany (Project VALIUM). <i>Atmospheric Chemistry and Physics</i> , 2006 , 6, 3077-3083	6.8	9
78	SODAR Messungen zur Atmosphäfenforschung und Umweltberwachung. <i>Meteorologische Zeitschrift</i> , 1998 , 7, 11-14	3.1	9
77	A measurement based analysis of the spatial distribution, temporal variation and chemical composition of particulate matter in Munich and Augsburg. <i>Meteorologische Zeitschrift</i> , 2011 , 20, 47-57	3.1	8
76	Mixing layer height and air pollution levels in urban area 2012 ,		8
75	History of the Meteorologische Zeitschrift. <i>Meteorologische Zeitschrift</i> , 2008 , 17, 685-693	3.1	8
74	Long-term observations of the urban mixing-layer height with ceilometers. <i>IOP Conference Series: Earth and Environmental Science</i> , 2008 , 1, 012027	0.3	8
73	Sensitivit der Ozonbildung auf Emissionen von VOCs und NOx –Eine Fallstudie mit dem Boxmodell BAYROZON. <i>Meteorologische Zeitschrift</i> , 1997 , 6, 60-72	3.1	8
72	Influences of the 2010 Eyjafjallajkull volcanic plume on air quality in the northern Alpine region		8
71	Source apportionment and the role of meteorological conditions in the assessment of air pollution exposure due to urban emissions		8
70	How to bring urban and global climate studies together with urban planning and architecture?. <i>Developments in the Built Environment</i> , 2020 , 4, 100023	5.1	8
69	Measurements of heat and humidity fluxes in the wake of offshore wind turbines. <i>Journal of Renewable and Sustainable Energy</i> , 2017 , 9, 053304	2.5	7
68	Spatial structure and dispersion of the 16/17 April 2010 volcanic ash cloud over Germany		7
67	Physics of Wind Parks. <i>Green Energy and Technology</i> , 2013 , 135-153	0.6	6
66	Adding confidence levels and error bars to mixing layer heights detected by ceilometer 2011 ,		6
65	Comparison of Logarithmic Wind Profiles and Power Law Wind Profiles and their Applicability for Offshore Wind Profiles 2007 , 61-64		6
64	Resistance law, effective roughness length, and deviation angle over hilly terrain. <i>Boundary-Layer Meteorology</i> , 1991 , 55, 191-198	3.4	6
63	Evaluation of a simple analytical model for offshore wind farm wake recovery by in situ data and Weather Research and Forecasting simulations. <i>Wind Energy</i> , 2021 , 24, 212-228	3.4	6

62	Chapter 26 Applications in Meteorology. <i>Developments in Soil Science</i> , 2009 , 33, 603-622	1.3	5
61	Three-Dimensional Ground-Based Measurements of Urban Air Quality to Evaluate Satellite Derived Interpretations for Urban Air Pollution. <i>Water, Air and Soil Pollution</i> , 2002 , 2, 91-102		5
60	Field measurements within a quarter of a city including a street canyon to produce a validation data set. <i>International Journal of Environment and Pollution</i> , 2005 , 25, 201	0.7	5
59	Surface pressure distribution and pressure drag on mountains. <i>Meteorology and Atmospheric Physics</i> , 1990 , 43, 173-185	2	5
58	Combined evaluations of meteorological parameters, traffic noise and air pollution in an Alpine valley. <i>Meteorologische Zeitschrift</i> , 2010 , 19, 47-61	3.1	4
57	Parameterization of turbulent viscosity over orography. <i>Meteorologische Zeitschrift</i> , 2004 , 13, 33-38	3.1	4
56	The Role of Atmospheric Stability and Turbulence in Offshore Wind-Farm Wakes in the German Bight. <i>Boundary-Layer Meteorology</i> ,1	3.4	4
55	Half-Order Stable Boundary-Layer Parametrization Without the Eddy Viscosity Approach for Use in Numerical Weather Prediction. <i>Boundary-Layer Meteorology</i> , 2015 , 154, 207-228	3.4	3
54	Correlation equation for the marine drag coefficient and wave steepness. <i>Ocean Dynamics</i> , 2012 , 62, 1323-1333	2.3	3
53	New results from continuous mixing layer height monitoring in urban atmosphere 2008 ,		3
52	Observation of aerosol in the mixing layer by a ground-based lidar ceilometer 2003 ,		3
51	A diagnostic model for synoptic heat budgets. <i>Archives for Meteorology, Geophysics and Bioclimatology, Series A</i> , 1985 , 33, 407-420		3
50	Air quality and engine emission at Paris CDG airport during AIRPUR field campaigns. <i>WIT Transactions on Ecology and the Environment</i> , 2006 ,	1	3
49	Observed and simulated turbulent kinetic energy (WRF 3.8.1) overlarge offshore wind farms 2019 ,		2
48	On a relation between particle size distribution and mixing layer height 2011 ,		2
47	Measuring the emissions of trace compounds from a livestock building 1997 , 3106, 137		2
46	Fusion of air pollution data in the region of Munich, Germany, by the ICAROS NET platform 2004 ,		2
45	Evaluation of mixing layer height monitoring by ceilometer with SODAR and microlight aircraft measurements 2005 ,		2

44	SmartAQnet: remote and in-situ sensing of urban air quality 2017 ,		2
43	In-situ airborne measurements of atmospheric and sea surface parameters related to offshore wind parks in the German Bight		2
42	The five main influencing factors on lidar errors in complex terrain		2
41	Assessment of air pollution in the vicinity of major alpine routes. <i>Alliance for Global Sustainability Bookseries</i> , 2007 , 203-214		2
40	Wind Data Sources. <i>Green Energy and Technology</i> , 2018 , 183-230	0.6	1
39	Offshore Winds. <i>Green Energy and Technology</i> , 2013 , 95-133	0.6	1
38	Long-term study of air urban quality together with mixing layer height 2013 ,		1
37	Investigation of boundary layer dynamics, dust and volcanic ash clouds with laser ceilometer 2013 ,		1
36	Application of continuous remote sensing of mixing layer height for assessment of airport air quality 2010 ,		1
35	Meteorological Aspects of Wind Park Design. <i>Green</i> , 2011 , 1,		1
34	Comparison of continuous detection of mixing layer heights by ceilometer with radiosonde observations 2011 ,		1
33	Improved near-range performance of a low-cost one lens lidar scanning the boundary layer 2009 ,		1
32	Determination of mixing layer heights by ceilometer and influences upon air quality at Mexico City airport 2009 ,		1
31	Evaluation of continuous ceilometer-based mixing layer heights and correlations with PM 2.5 concentrations in Beijing 2009 ,		1
30	Temporal and spatial structure of a volcanic ash cloud: ground-based remote sensing and numerical modeling 2010 ,		1
29	Das erste Jahrhundert deutschsprachiger meteorologischer Lehrbücher. <i>Berichte Zur Wissenschaftsgeschichte</i> , 2006 , 29, 39-51	0.4	1
28	Long-term monitoring of layering of lower atmosphere in urban environments by ceilometer 2007 , 6745, 214		1
27	Airport air quality and emission studies by remote sensing and inverse dispersion modelling 2006 , 6362, 352		1

26	Sodar and RASS. <i>Springer Handbooks</i> , 2021 , 663-684	1.3	1
25	Pilot Actions in European Cities [Stuttgart 2016 , 281-303		1
24	Vertical Profiles Over Flat Terrain. <i>Green Energy and Technology</i> , 2018 , 31-89	0.6	1
23	Report on the Research Project OWID [Offshore Wind Design Parameter 2007 , 81-85		1
22	Winds in Complex Terrain. <i>Green Energy and Technology</i> , 2013 , 75-93	0.6	1
21	Three-Dimensional Ground-Based Measurements of Urban Air Quality to Evaluate Satellite Derived Interpretations for Urban Air Pollution 2002 , 91-102		1
20	Forecasting Models for Urban Warming in Climate Change 2016 , 3-39		1
19	Detection of pollution transport events southeast of Mexico City using ground-based visible spectroscopy measurements of nitrogen dioxide		1
18	Analysis of Some Major Limitations of Analytical Top-Down Wind-Farm Models. <i>Boundary-Layer Meteorology</i> ,1	3.4	0
17	Physics of Wind Parks. <i>Green Energy and Technology</i> , 2018 , 157-182	0.6	0
16	The five main influencing factors for lidar errors in complex terrain. <i>Wind Energy Science</i> , 2022 , 7, 413-433.	1.2	0
15	Standards [An Important Step for the (Public) Use of Lidars. <i>EPJ Web of Conferences</i> , 2016 , 119, 23023	0.3	
14	Vertical Profiles Over Flat Terrain. <i>Green Energy and Technology</i> , 2013 , 23-73	0.6	
13	Basic Principles of Surface-Based Remote Sensing. <i>Atmospheric and Oceanographic Sciences Library</i> , 2011 , 33-71		
12	Weitreichender Windschatten. <i>Physik in Unserer Zeit</i> , 2011 , 42, 228-233	0.1	
11	Emission rates with the boundary layer budget method supported by acoustic remote sensing. <i>IOP Conference Series: Earth and Environmental Science</i> , 2008 , 1, 012055	0.3	
10	Measurement Systems for Wind, Solar and Hydro Power Applications. <i>Springer Handbooks</i> , 2021 , 1385-1405		
9	Wind Regimes. <i>Green Energy and Technology</i> , 2018 , 11-30	0.6	

- 8 Offshore Winds. *Green Energy and Technology*, **2018**, 113-155 0.6
- 7 Reduction of Horizontal Wind Speed in a Boundary Layer with Obstacles **1995**, 739-739
- 6 Cool Cities or Clean Cities? Secondary Impacts of Urban Heat Island Mitigation Strategies on Urban Air Quality. *Springer Proceedings in Complexity*, **2016**, 371-375 0.3
- 5 Derivation of Vertical Wind and Turbulence Profiles, the Mixing-Layer Height, and the Vertical Turbulent Exchange Coefficient from Sodar and Ceilometer Soundings in Urban Measurement Campaigns **2009**, 133-141
- 4 Analytical Description and Vertical Structure of the Atmospheric Boundary Layer. *Atmospheric and Oceanographic Sciences Library*, **2011**, 9-32
- 3 Enhancing the Simulation of Turbulent Kinetic Energy in the Marine Atmospheric Boundary Layer. *Springer Proceedings in Physics*, **2012**, 163-166 0.2
- 2 Wind Regimes. *Green Energy and Technology*, **2013**, 9-21 0.6
- 1 Urban Climate Impact and Interaction of Air Quality and Global Change **2013**, 345-354