Stefan Emeis

List of Publications by Year in Descending Order

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	The five main influencing factors for lidar errors in complex terrain. *Wind Energy Science*, **2022**, 7, 413-431	5.2	0
150	Sodar and RASS. *Springer Handbooks*, **2021**, 663-684	1.3	1
149	Measurement Systems for Wind, Solar and Hydro Power Applications. *Springer Handbooks*, **2021**, 1385-1405	1.3	
148	Evaluation of a simple analytical model for offshore wind farm wake recovery by in situ data and Weather Research and Forecasting simulations. *Wind Energy*, **2021**, 24, 212-228	3.4	6
147	Offshore wind farm wake recovery: Airborne measurements and its representation in engineering models. *Wind Energy*, **2020**, 23, 1249-1265	3.4	20
146	Long-range modifications of the wind field by offshore wind parks Results of the project WIPAFF. *Meteorologische Zeitschrift*, **2020**, 29, 355-376	3.1	15
145	In´situ airborne measurements of atmospheric and sea surface parameters related to offshore wind parks in the German Bight. *Earth System Science Data*, **2020**, 12, 935-946	10.5	10
144	How to bring urban and global climate studies together with urban planning and architecture?. *Developments in the Built Environment*, **2020**, 4, 100023	5.1	8
143	Turbulent kinetic energy over large offshore wind farms observed and simulated by the mesoscale model WRF (3.8.1). *Geoscientific Model Development*, **2020**, 13, 249-268	6.3	19
142	Observed and simulated turbulent kinetic energy (WRF 3.8.1) overlarge offshore wind farms **2019**,		2
141	Urban Climate Under Change [UC]2 A National Research Programme for Developing a Building-Resolving Atmospheric Model for Entire City Regions. *Meteorologische Zeitschrift*, **2019**, 28, 95-104	3.1	14
140	Three-Dimensional Observation of Atmospheric Processes in Cities. *Meteorologische Zeitschrift*, **2019**, 28, 121-138	3.1	11
139	First in situ evidence of wakes in the far field behind offshore wind farms. *Scientific Reports*, **2018**, 8, 2163	4.9	78
138	Seasonal variability and source distribution of haze particles from a continuous one-year study in Beijing. *Atmospheric Pollution Research*, **2018**, 9, 627-633	4.5	13
137	Wind Energy Meteorology. *Green Energy and Technology*, **2018**,	0.6	32
136	Wind Data Sources. *Green Energy and Technology*, **2018**, 183-230	0.6	1
135	Wind Regimes. *Green Energy and Technology*, **2018**, 11-30	0.6	

134	Offshore Winds. *Green Energy and Technology*, **2018**, 113-155	0.6	
133	Vertical Profiles Over Flat Terrain. *Green Energy and Technology*, **2018**, 31-89	0.6	1
132	Physics of Wind Parks. *Green Energy and Technology*, **2018**, 157-182	0.6	0
131	Micrometeorological impacts of offshore wind farms as seen in observations and simulations. *Environmental Research Letters*, **2018**, 13, 124012	6.2	29
130	Evaluation of a Wind Farm Parametrization for Mesoscale Atmospheric Flow Models with Aircraft Measurements. *Meteorologische Zeitschrift*, **2018**, 27, 401-415	3.1	22
129	High-Resolution Observations of Transport and Exchange Processes in Mountainous Terrain. *Atmosphere*, **2018**, 9, 457	2.7	12
128	Chemical characteristics of PM 2.5 during haze episodes in spring 2013 in Beijing. *Urban Climate*, **2017**, 22, 51-63	6.8	21
127	High resolution climate projections to assess the future vulnerability of European urban areas to climatological extreme events. *Theoretical and Applied Climatology*, **2017**, 127, 667-683	3	19
126	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	6.1	24
125	Measurements of heat and humidity fluxes in the wake of offshore wind turbines. *Journal of Renewable and Sustainable Energy*, **2017**, 9, 053304	2.5	7
124	The SCALEX Campaign: Scale-Crossing Land Surface and Boundary Layer Processes in the TERENO-preAlpine Observatory. *Bulletin of the American Meteorological Society*, **2017**, 98, 1217-1234	6.1	41
123	Upper limit for wind shear in stably stratified conditions expressed in terms of a bulk Richardson number. *Meteorologische Zeitschrift*, **2017**, 26, 421-430	3.1	9
122	Simultaneous multicopter-based air sampling and sensing of meteorological variables. *Atmospheric Measurement Techniques*, **2017**, 10, 2773-2784	4	50
121	SmartAQnet: remote and in-situ sensing of urban air quality **2017**,		2
120	Standards An Important Step for the (Public) Use of Lidars. *EPJ Web of Conferences*, **2016**, 119, 23023	0.3	
119	Characteristics and sources of PM in seasonal perspective A case study from one year continuously sampling in Beijing. *Atmospheric Pollution Research*, **2016**, 7, 235-248	4.5	29
118	Secondary effects of urban heat island mitigation measures on air quality. *Atmospheric Environment* , **2016**, 125, 199-211	5.3	105
117	Pilot Actions in European Cities Stuttgart **2016**, 281-303		1

116	Cool Cities? Clean Cities? Secondary Impacts of Urban Heat Island Mitigation Strategies on Urban Air Quality. *Springer Proceedings in Complexity*, **2016**, 371-375	0.3	
115	Forecasting Models for Urban Warming in Climate Change **2016**, 3-39		1
114	Exploring the wakes of large offshore wind farms. *Journal of Physics: Conference Series*, **2016**, 753, 092014	0.3	13
113	Impact of meteorological conditions on airborne fine particle composition and secondary pollutant characteristics in urban area during winter-time. *Meteorologische Zeitschrift*, **2016**, 25, 267-279	3.1	10
112	Half-Order Stable Boundary-Layer Parametrization Without the Eddy Viscosity Approach for Use in Numerical Weather Prediction. *Boundary-Layer Meteorology*, **2015**, 154, 207-228	3.4	3
111	Observational techniques to assist the coupling of CWE/CFD models and meso-scale meteorological models. *Journal of Wind Engineering and Industrial Aerodynamics*, **2015**, 144, 24-30	3.7	9
110	Remote sensing winds in complex terrain – a review. *Meteorologische Zeitschrift*, **2015**, 24, 547-555	3.1	22
109	Wind speed and shear associated with low-level jets over Northern Germany. *Meteorologische Zeitschrift*, **2014**, 23, 295-304	3.1	25
108	Current issues in wind energy meteorology. *Meteorological Applications*, **2014**, 21, 803-819	2.1	42
107	Physics of Wind Parks. *Green Energy and Technology*, **2013**, 135-153	0.6	6
106	Vertical Profiles Over Flat Terrain. *Green Energy and Technology*, **2013**, 23-73	0.6	
105	Offshore Winds. *Green Energy and Technology*, **2013**, 95-133	0.6	1
104	Long-term study of air urban quality together with mixing layer height **2013**,		1
103	Investigation of boundary layer dynamics, dust and volcanic ash clouds with laser ceilometer **2013**,		1
102	Wind Energy Meteorology. *Green Energy and Technology*, **2013**,	0.6	46
101	Winds in Complex Terrain. *Green Energy and Technology*, **2013**, 75-93	0.6	1
100	Wind Regimes. *Green Energy and Technology*, **2013**, 9-21	0.6	
99	Urban Climate: Impact and Interaction of Air Quality and Global Change **2013**, 345-354		

98	Evaluation of the Interpretation of Ceilometer Data with RASS and Radiosonde Data. *Boundary-Layer Meteorology*, **2012**, 143, 25-35	3.4	27
97	Correlation equation for the marine drag coefficient and wave steepness. *Ocean Dynamics*, **2012**, 62, 1323-1333	2.3	3
96	A Method for Increasing the Turbulent Kinetic Energy in the Mellor Yamada Janji Boundary-Layer Parametrization. *Boundary-Layer Meteorology*, **2012**, 145, 329-349	3.4	12
95	A year of H2 measurements at Weybourne Atmospheric Observatory, UK. *Tellus, Series B: Chemical and Physical Meteorology*, **2012**, 64, 17771	3.3	12
94	Areal-averaged trace gas emission rates from long-range open-path measurements in stable boundary layer conditions. *Atmospheric Measurement Techniques*, **2012**, 5, 1571-1583	4	9
93	Mixing layer height and air pollution levels in urban area **2012**,		8
92	Enhancing the Simulation of Turbulent Kinetic Energy in the Marine Atmospheric Boundary Layer. *Springer Proceedings in Physics*, **2012**, 163-166	0.2	
91	Surface-Based Remote Sensing of the Atmospheric Boundary Layer. *Atmospheric and Oceanographic Sciences Library*, **2011**,		36
90	Influences of the 2010 Eyjafjallajkull volcanic plume on air quality in the northern Alpine region. *Atmospheric Chemistry and Physics*, **2011**, 11, 8555-8575	6.8	37
89	Measurement and simulation of the 16/17 April 2010 Eyjafjallajkull volcanic ash layer dispersion in the northern Alpine region. *Atmospheric Chemistry and Physics*, **2011**, 11, 2689-2701	6.8	63
88	A measurement based analysis of the spatial distribution, temporal variation and chemical composition of particulate matter in Munich and Augsburg. *Meteorologische Zeitschrift*, **2011**, 20, 47-57	3.1	8
87	Adding confidence levels and error bars to mixing layer heights detected by ceilometer **2011**,		6
86	Basic Principles of Surface-Based Remote Sensing. *Atmospheric and Oceanographic Sciences Library*, **2011**, 33-71		
85	Weitreichender Windschatten. *Physik in Unserer Zeit*, **2011**, 42, 228-233	0.1	
84	Meteorological Aspects of Wind Park Design. *Green*, **2011**, 1,		1
83	On a relation between particle size distribution and mixing layer height **2011**,		2
82	Comparison of continuous detection of mixing layer heights by ceilometer with radiosonde observations **2011**,		1
81	Analytical Description and Vertical Structure of the Atmospheric Boundary Layer. *Atmospheric and Oceanographic Sciences Library*, **2011**, 9-32		

80	Application of continuous remote sensing of mixing layer height for assessment of airport air quality **2010**,		1
79	Waterspouts over the North and Baltic Seas: Observations and climatology, prediction and reporting. *Meteorologische Zeitschrift*, **2010**, 19, 115-129	3.1	13
78	Temporal and spatial structure of a volcanic ash cloud: ground-based remote sensing and numerical modeling **2010**,		1
77	Combined evaluations of meteorological parameters, traffic noise and air pollution in an Alpine valley. *Meteorologische Zeitschrift*, **2010**, 19, 47-61	3.1	4
76	Revisiting the Definition of the Drag Coefficient in the Marine Atmospheric Boundary Layer. *Journal of Physical Oceanography*, **2010**, 40, 2325-2332	2.4	66
75	The dependence of offshore turbulence intensity on wind speed. *Journal of Wind Engineering and Industrial Aerodynamics*, **2010**, 98, 466-471	3.7	67
74	Observation of the structure of the urban boundary layer with different ceilometers and validation by RASS data. *Meteorologische Zeitschrift*, **2009**, 18, 149-154	3.1	39
73	Chapter 26 Applications in Meteorology. *Developments in Soil Science*, **2009**, 33, 603-622	1.3	5
72	Wind-driven wave heights in the German Bight. *Ocean Dynamics*, **2009**, 59, 463-475	2.3	19
71	Air Pollution Transport in an Alpine Valley: Results From Airborne and Ground-Based Observations. *Boundary-Layer Meteorology*, **2009**, 131, 441-463	3.4	79
70	A Comparison Between Modelled and Measured Mixing-Layer Height Over Munich. *Boundary-Layer Meteorology*, **2009**, 131, 425-440	3.4	20
69	A simple analytical wind park model considering atmospheric stability. *Wind Energy*, **2009**, 13, 459-469	3.4	57
68	Improved near-range performance of a low-cost one lens lidar scanning the boundary layer **2009**,		1
67	Determination of mixing layer heights by ceilometer and influences upon air quality at Mexico City airport **2009**,		1
66	Detection of pollution transport events southeast of Mexico City using ground-based visible spectroscopy measurements of nitrogen dioxide. *Atmospheric Chemistry and Physics*, **2009**, 9, 4827-4840	6.8	13
65	Evaluation of continuous ceilometer-based mixing layer heights and correlations with PM 2.5 concentrations in Beijing **2009**,		1
64	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		
63	Correlation of aerosol mass near the ground with aerosol optical depth during two seasons in Munich. *Atmospheric Environment*, **2008**, 42, 4036-4046	5.3	50

62	New results from continuous mixing layer height monitoring in urban atmosphere **2008**,		3
61	Examples for the determination of turbulent (sub-synoptic) fluxes with inverse methods. *Meteorologische Zeitschrift*, **2008**, 17, 3-11	3.1	9
60	History of the Meteorologische Zeitschrift. *Meteorologische Zeitschrift*, **2008**, 17, 685-693	3.1	8
59	Surface-based remote sensing of the mixing-layer height a review. *Meteorologische Zeitschrift*, **2008** , 17, 621-630	3.1	167
58	Long-term observations of the urban mixing-layer height with ceilometers. *IOP Conference Series: Earth and Environmental Science*, **2008**, 1, 012027	0.3	8
57	Atmospheric influences and local variability of air pollution close to a motorway in an Alpine valley during winter. *Meteorologische Zeitschrift*, **2008**, 17, 297-309	3.1	11
56	Emission rates with the boundary layer budget method supported by acoustic remote sensing. *IOP Conference Series: Earth and Environmental Science*, **2008**, 1, 012055	0.3	
55	Aerosol optical depth, aerosol composition and air pollution during summer and winter conditions in Budapest. *Science of the Total Environment*, **2007**, 383, 141-63	10.2	22
54	The surface energy balance and the mixing height in urban areas□ctivities and recommendations of COST-Action 715. *Boundary-Layer Meteorology*, **2007**, 124, 3-24	3.4	48
53	Multiple atmospheric layering and mixing-layer height in the Inn valley observed by remote sensing. *Meteorologische Zeitschrift*, **2007**, 16, 415-424	3.1	67
52	Boundary-layer anemometry by optical remote sensing for wind energy applications. *Meteorologische Zeitschrift*, **2007**, 16, 337-347	3.1	66
51	Wind and turbulence in the urban boundary layer analysis from acoustic remote sensing data and fit to analytical relations. *Meteorologische Zeitschrift*, **2007**, 16, 393-406	3.1	36
50	Long-term monitoring of layering of lower atmosphere in urban environments by ceilometer **2007**, 6745, 214		1
49	Comparison of Logarithmic Wind Profiles and Power Law Wind Profiles and their Applicability for Offshore Wind Profiles **2007**, 61-64		6
48	Report on the Research Project OWID □Offshore Wind Design Parameter **2007**, 81-85		1
47	Assessment of air pollution in the vicinity of major alpine routes. *Alliance for Global Sustainability Bookseries*, **2007**, 203-214		2
46	Das erste Jahrhundert deutschsprachiger meteorologischer Lehrb□her. *Berichte Zur Wissenschaftsgeschichte*, **2006**, 29, 39-51	0.4	1
45	Influence of mixing layer height upon air pollution in urban and sub-urban areas. *Meteorologische Zeitschrift*, **2006**, 15, 647-658	3.1	74

44	Mixing layer height over Munich, Germany: Variability and comparisons of different methodologies. *Journal of Geophysical Research*, **2006**, 111,		63
43	Development and validation of tools for the implementation of european air quality policy in Germany (Project VALIUM). *Atmospheric Chemistry and Physics*, **2006**, 6, 3077-3083	6.8	9
42	Airport air quality and emission studies by remote sensing and inverse dispersion modelling **2006**, 6362, 352		1
41	Remote Sensing Methods to Investigate Boundary-layer Structures relevant to Air Pollution in Cities. *Boundary-Layer Meteorology*, **2006**, 121, 377-385	3.4	74
40	Air quality and engine emission at Paris CDG airport during AIRPUR field campaigns. *WIT Transactions on Ecology and the Environment*, **2006**,	1	3
39	Field measurements within a quarter of a city including a street canyon to produce a validation data set. *International Journal of Environment and Pollution*, **2005**, 25, 201	0.7	5
38	Evaluation of mixing layer height monitoring by ceilometer with SODAR and microlight aircraft measurements **2005**,		2
37	Frequency distributions of the mixing height over an urban area from SODAR data. *Meteorologische Zeitschrift*, **2004**, 13, 361-367	3.1	33
36	Vertical wind profiles over an urban area. *Meteorologische Zeitschrift*, **2004**, 13, 353-359	3.1	18
35	Determination of mixing layer heights from ceilometer data **2004**, 5571, 248		17
34	Fusion of air pollution data in the region of Munich, Germany, by the ICAROS NET platform **2004**,		2
33	Aerosol concentration measurements with a lidar ceilometer: results of a one year measuring campaign **2004**, 5235, 486		14
32	Atmospheric boundary-layer structure from simultaneous SODAR, RASS, and ceilometer measurements. *Atmospheric Environment*, **2004**, 38, 273-286	5.3	131
31	Parameterization of turbulent viscosity over orography. *Meteorologische Zeitschrift*, **2004**, 13, 33-38	3.1	4
30	Observation of aerosol in the mixing layer by a ground-based lidar ceilometer **2003**,		3
29	Development of Emission Models and Improvement of Emission Data for Germany. *Journal of Atmospheric Chemistry*, **2002**, 42, 179-206	3.2	12
28	Three-Dimensional Ground-Based Measurements of Urban Air Quality to Evaluate Satellite Derived Interpretations for Urban Air Pollution. *Water, Air and Soil Pollution*, **2002**, 2, 91-102		5
27	Three-Dimensional Ground-Based Measurements of Urban Air Quality to Evaluate Satellite Derived Interpretations for Urban Air Pollution **2002**, 91-102		1

26	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. *Atmospheric Environment*, **2001**, 35, 5441-5454	5.3	16
25	Vertical variation of frequency distributions of wind speed in and above the surface layer observed by sodar. *Meteorologische Zeitschrift*, **2001**, 10, 141-149	3.1	18
24	Process-based modelling of isoprene emission by oak leaves. *Plant, Cell and Environment*, **2000**, 23, 585-595	3.4	99
23	Nocturnal secondary ozone concentration maxima analysed by sodar observations and surface measurements. *Atmospheric Environment*, **2000**, 34, 4315-4329	5.3	66
22	The VOTALP Mesolcina Valley Campaign 1996 Concept, background and some highlights. *Atmospheric Environment*, **2000**, 34, 1395-1412	5.3	46
21	Application of a multiscale, coupled MM5/chemistry model to the complex terrain of the VOTALP valley campaign. *Atmospheric Environment*, **2000**, 34, 1435-1453	5.3	168
20	SODAR Messungen zur Atmosphärenforschung und Umweltüberwachung. *Meteorologische Zeitschrift*, **1998**, 7, 11-14	3.1	9
19	Measuring the emissions of trace compounds from a livestock building **1997**, 3106, 137		2
18	Sensitivität der Ozonbildung auf Emissionen von VOCs und NOx Eine Fallstudie mit dem Boxmodell BAYROZON. *Meteorologische Zeitschrift*, **1997**, 6, 60-72	3.1	8
17	Modification of air flow over an escarpment Results from the Hjardem experiment. *Boundary-Layer Meteorology*, **1995**, 74, 131-161	3.4	35
16	Reduction of Horizontal Wind Speed in a Boundary Layer with Obstacles **1995**, 739-739		
15	Flow over an embankment: Speed-up and pressure perturbation. *Boundary-Layer Meteorology*, **1993**, 63, 163-182	3.4	15
14	Reduction of horizontal wind speed in a boundary layer with obstacles. *Boundary-Layer Meteorology*, **1993**, 64, 297-305	3.4	40
13	Resistance law, effective roughness length, and deviation angle over hilly terrain. *Boundary-Layer Meteorology*, **1991**, 55, 191-198	3.4	6
12	Surface pressure distribution and pressure drag on mountains. *Meteorology and Atmospheric Physics*, **1990**, 43, 173-185	2	5
11	Pressure Drag of Obstacles in the Atmospheric Boundary Layer. *Journal of Applied Meteorology and Climatology*, **1990**, 29, 461-476		14
10	Pressure drag and effective roughness length with neutral stratification. *Boundary-Layer Meteorology*, **1987**, 39, 379-401	3.4	17
9	A diagnostic model for synoptic heat budgets. *Archives for Meteorology, Geophysics and Bioclimatology, Series A*, **1985**, 33, 407-420		3

8	Analysis of Some Major Limitations of Analytical Top-Down Wind-Farm Models. *Boundary-Layer Meteorology*,1	3.4	0
7	Spatial structure and dispersion of the 16/17 April 2010 volcanic ash cloud over Germany		7
6	Influences of the 2010 Eyjafjallajökull volcanic plume on air quality in the northern Alpine region		8
5	Source apportionment and the role of meteorological conditions in the assessment of air pollution exposure due to urban emissions		8
4	In-situ airborne measurements of atmospheric and sea surface parameters related to offshore wind parks in the German Bight		2
3	The Role of Atmospheric Stability and Turbulence in Offshore Wind-Farm Wakes in the German Bight. *Boundary-Layer Meteorology*,1	3.4	4
2	Detection of pollution transport events southeast of Mexico City using ground-based visible spectroscopy measurements of nitrogen dioxide		1
1	The five main influencing factors on lidar errors in complex terrain		2