Jens Bange

List of Publications by Year in descending order

66 papers	2,172 citations	201575 27 h-index	243529 44 g-index
103 all docs	103 docs citations	103 times ranked	1946 citing authors

#	Article	IF	Citations
1	Measuring the Wind Vector Using the Autonomous Mini Aerial Vehicle M2AV. Journal of Atmospheric and Oceanic Technology, 2008, 25, 1969-1982.	0.5	166
2	Energy balance closure for the LITFASS-2003 experiment. Theoretical and Applied Climatology, 2010, 101, 149-160.	1.3	127
3	First in situ evidence of wakes in the far field behind offshore wind farms. Scientific Reports, 2018, 8, 2163.	1.6	124
4	Area-Averaged Surface Fluxes Over the Litfass Region Based on Eddy-Covariance Measurements. Boundary-Layer Meteorology, 2006, 121, 33-65.	1.2	105
5	Meteorological profiling of the lower troposphere using the research UAV "M²AV Carolo". Atmospheric Measurement Techniques, 2011, 4, 705-716.	1.2	95
6	First application of the meteorological Mini-UAV 'M2AV'. Meteorologische Zeitschrift, 2007, 16, 159-169.	0.5	91
7	ALADINA â€“ an unmanned research aircraft for observing vertical and horizontal distributions of ultrafine particles within the atmospheric boundary layer. Atmospheric Measurement Techniques, 2015, 8, 1627-1639.	1.2	84
8	MASC â€“ a small Remotely Piloted Aircraft (RPA) for wind energy research. Advances in Science and Research, 2014, 11, 55-61.	1.0	70
9	Spatially-Averaged Temperature Structure Parameter Over a Heterogeneous Surface Measured by an Unmanned Aerial Vehicle. Boundary-Layer Meteorology, 2012, 142, 55-77.	1.2	68
10	An Observational Case Study on the Influence of Atmospheric Boundary-Layer Dynamics on New Particle Formation. Boundary-Layer Meteorology, 2016, 158, 67-92.	1.2	66
11	Towards higher accuracy and better frequency response with standard multi-hole probes in turbulence measurement with remotely piloted aircraft (RPA). Atmospheric Measurement Techniques, 2014, 7, 1027-1041.	1.2	51
12	Offshore wind farm wake recovery: Airborne measurements and its representation in engineering models. Wind Energy, 2020, 23, 1249-1265.	1.9	51
13	Evaporation Over A Heterogeneous Land Surface. Bulletin of the American Meteorological Society, 2006, 87, 775-786.	1.7	50
14	Airborne measurements of turbulent fluxes during LITFASS-98: Comparison with ground measurements and remote sensing in a case study. Theoretical and Applied Climatology, 2002, 73, 35-51.	1.3	49
15	Innovative Strategies for Observations in the Arctic Atmospheric Boundary Layer (ISOBAR)â€”The Hailuoto 2017 Campaign. Atmosphere, 2018, 9, 268.	1.0	45
16	Two fast temperature sensors for probing of the atmospheric boundary layer using small remotely piloted aircraft (RPA). Atmospheric Measurement Techniques, 2013, 6, 2101-2113.	1.2	44
17	Helicopter-Borne Flux Measurements in the Nocturnal Boundary Layer Over Land â€“ a Case Study. Boundary-Layer Meteorology, 1999, 92, 295-325.	1.2	43
18	Towards a Validation of Scintillometer Measurements: The LITFASS-2009 Experiment. Boundary-Layer Meteorology, 2012, 144, 83-112.	1.2	43

#	Article	IF	Citations
19	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.	1.3	42
20	Evaluation of a Wind Farm Parametrization for Mesoscale Atmospheric Flow Models with Aircraft Measurements. Meteorologische Zeitschrift, 2018, 27, 401-415.	0.5	36
21	Reviewing Wind Measurement Approaches for Fixed-Wing Unmanned Aircraft. Atmosphere, 2018, 9, 422.	1.0	36
22	The Multi-Purpose Airborne Sensor Carrier MASC-3 for Wind and Turbulence Measurements in the Atmospheric Boundary Layer. Sensors, 2019, 19, 2292.	2.1	33
23	Characteristics of the early-morning shallow convective boundary layer from Helipod Flights during STINHO-2. Theoretical and Applied Climatology, 2007, 90, 113-126.	1.3	32
24	Simulated Airborne Flux Measurements in a LES generated Convective Boundary Layer. Boundary-Layer Meteorology, 2000, 95, 437-456.	1.2	30
25	Measuring the local wind field at an escarpment using small remotely-piloted aircraft. Renewable Energy, 2017, 103, 613-619.	4.3	30
26	Long-range modifications of the wind field by offshore wind parksÂâ€“ results of the project WIPAFF. Meteorologische Zeitschrift, 2020, 29, 355-376.	0.5	30
27	Observations of the Early Morning Boundary-Layer Transition with Small Remotely-Piloted Aircraft. Boundary-Layer Meteorology, 2015, 157, 345-373.	1.2	29
28	Observing Entrainment Processes Using a Small Unmanned Aerial Vehicle: A Feasibility Study. Boundary-Layer Meteorology, 2014, 150, 449-467.	1.2	27
29	Overview: Integrative and Comprehensive Understanding on Polar Environments (iCUPE) â€“ concept and initial results. Atmospheric Chemistry and Physics, 2020, 20, 8551-8592.	1.9	26
30	Turbulent flux calculation in the polar stable boundary layer: Multiresolution flux decomposition and wavelet analysis. Journal of Geophysical Research, 2007, 112, .	3.3	25
31	A study of local turbulence and anisotropy during the afternoon and evening transition with an unmanned aerial system and mesoscale simulation. Atmospheric Chemistry and Physics, 2016, 16, 8009-8021.	1.9	25
32	A New Method for the Determination of Area-Averaged Turbulent Surface Fluxes from Low-Level Flights Using Inverse Models. Boundary-Layer Meteorology, 2006, 119, 527-561.	1.2	24
33	Turbulent fluxes from Helipod flights above quasi-homogeneous patches within the LITFASS area. Boundary-Layer Meteorology, 2006, 121, 127-151.	1.2	24
34	An inverse-modelling approach for frequency response correction of capacitive humidity sensors in ABL research with small remotely piloted aircraft (RPA). Atmospheric Measurement Techniques, 2014, 7, 3059-3069.	1.2	22
35	Conductance of Ag on Si(111): a two-dimensional percolation problem. Journal of Physics Condensed Matter, 1993, 5, 2913-2918.	0.7	21
36	Airborne observations of newly formed boundary layer aerosol particles under cloudy conditions. Atmospheric Chemistry and Physics, 2018, 18, 8249-8264.	1.9	21

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37	Calibration Procedure and Accuracy of Wind and Turbulence Measurements with Five-Hole Probes on Fixed-Wing Unmanned Aircraft in the Atmospheric Boundary Layer and Wind Turbine Wakes. Atmosphere, 2019, 10, 124.	1.0	18
38	Determination of boundary-layer parameters using wind profiler/RASS and sodar/RASS in the frame of the LITFASS project. Theoretical and Applied Climatology, 2002, 73, 53-65.	1.3	17
39	A new multicopter-based unmanned aerial system for pollen and spores collection in the atmospheric boundary layer. Atmospheric Measurement Techniques, 2019, 12, 1581-1598.	1.2	17
40	STINHO Structure of turbulent transport under inhomogeneous surface conditions part 1: The micro-scale field experiment. Meteorologische Zeitschrift, 2005, 14, 315-327.	0.5	17
41	InÂsitu 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.	3.7	16
42	The Influence of Aircraft Speed Variations on Sensible Heat-Flux Measurements by Different Airborne Systems. Boundary-Layer Meteorology, 2014, 150, 153-166.	1.2	15
43	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.	1.9	15
44	The Role of Atmospheric Stability and Turbulence in Offshore Wind-Farm Wakes in the German Bight. Boundary-Layer Meteorology, 2022, 182, 441-469.	1.2	14
45	On the Discrepancy in Simultaneous Observations of the Structure Parameter of Temperature Using Scintillometers and Unmanned Aircraft. Boundary-Layer Meteorology, 2016, 158, 257-283.	1.2	12
46	First identification and quantification of detached-tip vortices behind a wind energy converter using fixed-wing unmanned aircraft system. Wind Energy Science, 2019, 4, 451-463.	1.2	12
47	Model comparison of two different non-hydrostatic formulations for the Navier-Stokes equations simulating wind flow in complex terrain. Journal of Wind Engineering and Industrial Aerodynamics, 2017, 169, 290-307.	1.7	10
48	Comparison of CFD Simulation to UAS Measurements for Wind Flows in Complex Terrain: Application to the WINSENT Test Site. Energies, 2019, 12, 1992.	1.6	9
49	Comparison of two methods simulating highly resolved atmospheric turbulence data for study of stall effects. Computers and Fluids, 2015, 108, 57-66.	1.3	8
50	Comparison of Different Measurement Techniques and a CFD Simulation in Complex Terrain. Journal of Physics: Conference Series, 2016, 753, 082017.	0.3	8
51	Simulation of Wing Stall. , 2013, , .		7
52	Large-Eddy Simulations of realistic atmospheric turbulence with the DLR-TAU-code initialized by in situ airborne measurements. Computers and Fluids, 2012, 66, 121-129.	1.3	6
53	Observations of the Temperature and Humidity Structure Parameter Over Heterogeneous Terrain by Airborne Measurements During the LITFASS-2003 Campaign. Boundary-Layer Meteorology, 2017, 165, 447-473.	1.2	6
54	Validating CFD Predictions of Flow over an Escarpment Using Ground-Based and Airborne Measurement Devices. Energies, 2020, 13, 4688.	1.6	6

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55	Application of Different Turbulence Models Simulating Wind Flow in Complex Terrain: A Case Study for the WindForS Test Site. Computation, 2018, 6, 43.	1.0	5
56	A Two-Day Case Study: Comparison of Turbulence Data from an Unmanned Aircraft System with a Model Chain for Complex Terrain. Boundary-Layer Meteorology, 2021, 180, 53-78.	1.2	4
57	Inverse method as an analysing tool for airborne measurements. Meteorologische Zeitschrift, 2000, 9, 361-376.	0.5	4
58	Unmanned Aircraft Systems. Springer Handbooks, 2021, , 1331-1349.	0.3	4
59	Simulation of Wing and Nacelle Stall. , 2016, , .		3
60	Analysis of the influence of a lake on the lower convective boundary layer from airborne observations. Meteorologische Zeitschrift, 2017, 26, 161-180.	0.5	3
61	An anisotropic synthetic turbulence method for Large-Eddy Simulation. International Journal of Heat and Fluid Flow, 2016, 62, 407-422.	1.1	2
62	CFD Prediction of Tip Vortex Aging in the Wake of a Multi-MW Wind Turbine. Journal of Physics: Conference Series, 2020, 1618, 062029.	0.3	2
63	A New Method to Generate Anisotropic Synthetic Turbulence for LES. Notes on Numerical Fluid Mechanics and Multidisciplinary Design, 2016, , 223-233.	0.2	2
64	Comparison Of High Resolution Large-Eddy Simulations And Synthetic Turbulent Wind Fields. , 2010, , .		1
65	Numerical Simulation of the Turbulent Flow Around a Wing. Notes on Numerical Fluid Mechanics and Multidisciplinary Design, 2016, , 235-247.	0.2	0
66	Turbulence above offshore wind farms measured by aircraft. Journal of Physics: Conference Series, 2022, 2265, 022065.	0.3	0