Branko KosoviÄ

List of Publications by Year
in descending order

68	3,283	159585 30	149698 56
papers	citations	h-index	g-index

74	74	74	2317
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	An Intercomparison of Large-Eddy Simulations of the Stable Boundary Layer. Boundary-Layer Meteorology, 2006, 118, 247-272.	2.3	417
2	A Large Eddy Simulation Study of a Quasi-Steady, Stably Stratified Atmospheric Boundary Layer. Journals of the Atmospheric Sciences, 2000, 57, 1052-1068.	1.7	233
3	Subgrid-scale modelling for the large-eddy simulation of high-Reynolds-number boundary layers. Journal of Fluid Mechanics, 1997, 336, 151-182.	3.4	229
4	An intercomparison of radiatively driven entrainment and turbulence in a smoke cloud, as simulated by different numerical models. Quarterly Journal of the Royal Meteorological Society, 1999, 125, 391-423.	2.7	159
5	Bridging the Transition from Mesoscale to Microscale Turbulence in Numerical Weather Prediction Models. Boundary-Layer Meteorology, 2014, 153, 409-440.	2.3	131
6	Implementation of a Nonlinear Subfilter Turbulence Stress Model for Large-Eddy Simulation in the Advanced Research WRF Model. Monthly Weather Review, 2010, 138, 4212-4228.	1.4	125
7	Convectively Induced Secondary Circulations in Fine-Grid Mesoscale Numerical Weather Prediction Models. Monthly Weather Review, 2014, 142, 3284-3302.	1.4	119
8	Subgrid-scale modeling for large-eddy simulations of compressible turbulence. Physics of Fluids, 2002, 14, 1511-1522.	4.0	95
9	Improving Wind Energy Forecasting through Numerical Weather Prediction Model Development. Bulletin of the American Meteorological Society, 2019, 100, 2201-2220.	3.3	87
10	Resolved Turbulence Characteristics in Large-Eddy Simulations Nested within Mesoscale Simulations Using the Weather Research and Forecasting Model. Monthly Weather Review, 2014, 142, 806-831.	1.4	86
11	Coupled mesoscaleâ€‹<scp>LES</scp> modeling of a diurnal cycle during the <scp>CWEX</scp>â€‹13 field campaign: From weather to boundaryâ€‹layer eddies. Journal of Advances in Modeling Earth Systems, 2017, 9, 1572-1594.	3.8	82
12	Implementation and Evaluation of Dynamic Subfilter-Scale Stress Models for Large-Eddy Simulation Using WRF*. Monthly Weather Review, 2012, 140, 266-284.	1.4	71
13	Large eddy simulation of wind turbine wake dynamics in the stable boundary layer using the Weather Research and Forecasting Model. Journal of Renewable and Sustainable Energy, 2014, 6, .	2.0	69
14	Implementation of a generalized actuator disk wind turbine model into the weather research and forecasting model for large-eddy simulation applications. Journal of Renewable and Sustainable Energy, 2014, 6, 013104.	2.0	69
15	A stochastic perturbation method to generate inflow turbulence in large-eddy simulation models: Application to neutrally stratified atmospheric boundary layers. Physics of Fluids, 2015, 27, .	4.0	67
16	Variable Generation Power Forecasting as a Big Data Problem. IEEE Transactions on Sustainable Energy, 2017, 8, 725-732.	8.8	61
17	Assessing State-of-the-Art Capabilities for Probing the Atmospheric Boundary Layer: The XPIA Field Campaign. Bulletin of the American Meteorological Society, 2017, 98, 289-314.	3.3	59
18	Mesoscale to microscale wind farm flow modeling and evaluation. Wiley Interdisciplinary Reviews: Energy and Environment, 2017, 6, e214.	4.1	58

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19	Transition and Equilibration of Neutral Atmospheric Boundary Layer Flow in One-Way Nested Large-Eddy Simulations Using the Weather Research and Forecasting Model. Monthly Weather Review, 2013, 141, 918-940.	1.4	53
20	The Role of Unresolved Clouds on Short-Range Global Horizontal Irradiance Predictability. Monthly Weather Review, 2016, 144, 3099-3107.	1.4	53
21	Building the Sun4Cast System: Improvements in Solar Power Forecasting. Bulletin of the American Meteorological Society, 2018, 99, 121-136.	3.3	53
22	On Bridging A Modeling Scale Gap: Mesoscale to Microscale Coupling for Wind Energy. Bulletin of the American Meteorological Society, 2019, 100, 2533-2550.	3.3	53
23	Comparison of Measured and Numerically Simulated Turbulence Statistics in a Convective Boundary Layer Over Complex Terrain. Boundary-Layer Meteorology, 2017, 163, 69-89.	2.3	49
24	Investigating wind turbine impacts on near-wake flow using profiling lidar data and large-eddy simulations with an actuator disk model. Journal of Renewable and Sustainable Energy, 2015, 7, .	2.0	48
25	Meteorology for Coastal/Offshore Wind Energy in the United States: Recommendations and Research Needs for the Next 10 Years. Bulletin of the American Meteorological Society, 2014, 95, 515-519.	3.3	46
26	Simulating effects of a windâ€turbine array using LES and RANS. Journal of Advances in Modeling Earth Systems, 2016, 8, 1376-1390.	3.8	45
27	A Comprehensive Wind Power Forecasting System Integrating Artificial Intelligence and Numerical Weather Prediction. Energies, 2020, 13, 1372.	3.1	42
28	Generation of Inflow Turbulence in Large-Eddy Simulations of Nonneutral Atmospheric Boundary Layers with the Cell Perturbation Method. Monthly Weather Review, 2018, 146, 1889-1909.	1.4	40
29	Nesting Turbulence in an Offshore Convective Boundary Layer Using Large-Eddy Simulations. Boundary-Layer Meteorology, 2014, 151, 453-478.	2.3	36
30	Evaluation of the Impact of Horizontal Grid Spacing in Terra Incognita on Coupled Mesoscaleâ€“Microscale Simulations Using the WRF Framework. Monthly Weather Review, 2019, 147, 1007-1027.	1.4	35
31	An Accurate Fireâ€Spread Algorithm in the Weather Research and Forecasting Model Using the Levelâ€Set Method. Journal of Advances in Modeling Earth Systems, 2018, 10, 908-926.	3.8	32
32	A High Resolution Coupled Fireâ€“Atmosphere Forecasting System to Minimize the Impacts of Wildland Fires: Applications to the Chimney Tops II Wildland Event. Atmosphere, 2018, 9, 197.	2.3	30
33	Combining Artificial Intelligence with Physics-Based Methods for Probabilistic Renewable Energy Forecasting. Energies, 2020, 13, 1979.	3.1	26
34	Limitations of One-Dimensional Mesoscale PBL Parameterizations in Reproducing Mountain-Wave Flows. Journals of the Atmospheric Sciences, 2016, 73, 2603-2614.	1.7	25
35	Blending distributed photovoltaic and demand load forecasts. Solar Energy, 2017, 157, 542-551.	6.1	24
36	A methodology for the design and testing of atmospheric boundary layer models for wind energy applications. Wind Energy Science, 2017, 2, 35-54.	3.3	24

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37	Turbulence parameterizations for dispersion in sub-kilometer horizontally non-homogeneous flows. Atmospheric Research, 2019, 228, 122-136.	4.1	22
38	Large-eddy simulation sensitivities to variations of configuration and forcing parameters in canonical boundary-layer flows for wind energy applications. Wind Energy Science, 2018, 3, 589-613.	3.3	22
39	Similarity of structure-function parameters in the stably stratified boundary layer. Boundary-Layer Meteorology, 1994, 71, 277-296.	2.3	20
40	Implementation of a generalized actuator line model for wind turbine parameterization in the Weather Research and Forecasting model. Journal of Renewable and Sustainable Energy, 2017, 9, .	2.0	18
41	Toward Lowâ€Level Turbulence Forecasting at Eddyâ€Resolving Scales. Geophysical Research Letters, 2018, 45, 8655-8664.	4.0	18
42	â€˜Evolution of a Storm-driven Cloudy Boundary Layer in the Arcticâ€™. Boundary-Layer Meteorology, 2005, 117, 213-230.	2.3	17
43	A Large-Eddy Simulation Study of the Influence of Subsidence on the Stably Stratified Atmospheric Boundary Layer. Boundary-Layer Meteorology, 2010, 134, 1.	2.3	16
44	Three-Dimensional Planetary Boundary Layer Parameterization for High-Resolution Mesoscale Simulations. Journal of Physics: Conference Series, 2020, 1452, 012080.	0.4	15
45	Enhancing wildfire spread modelling by building a gridded fuel moisture content product with machine learning. Machine Learning: Science and Technology, 2020, 1, 035010.	5.0	15
46	Eulerian dispersion modeling with WRF-LES of plume impingement in neutrally and stably stratified turbulent boundary layers. Atmospheric Environment, 2014, 99, 571-581.	4.1	14
47	â€œGray Zoneâ€•Simulations Using a Three-Dimensional Planetary Boundary Layer Parameterization in the Weather Research and Forecasting Model. Monthly Weather Review, 2022, 150, 1585-1619.	1.4	14
48	Smoke from 2020 United States wildfires responsible for substantial solar energy forecast errors. Environmental Research Letters, 2022, 17, 034010.	5.2	14
49	A Computationally Efficient Method for Updating Fuel Inputs for Wildfire Behavior Models Using Sentinel Imagery and Random Forest Classification. Remote Sensing, 2022, 14, 1447.	4.0	14
50	Exploring Vertical Turbulence Structure in Neutrally and Stably Stratified Flows Using the Weather Research and Forecastingâ€“Large-Eddy Simulation (WRFâ€“LES) Model. Boundary-Layer Meteorology, 2016, 161, 355-374.	2.3	12
51	Spatiotemporal Variability of Turbulence Kinetic Energy Budgets in the Convective Boundary Layer over Both Simple and Complex Terrain. Journal of Applied Meteorology and Climatology, 2017, 56, 3285-3302.	1.5	12
52	Improving Wind Predictions in the Marine Atmospheric Boundary Layer through Parameter Estimation in a Single-Column Model. Monthly Weather Review, 2017, 145, 5-24.	1.4	11
53	The impact of boundary layer turbulence on snow growth and precipitation: Idealized Large Eddy Simulations. Atmospheric Research, 2018, 204, 54-66.	4.1	10
54	Evaluation of idealized large-eddy simulations performed with the Weather Research and Forecasting model using turbulence measurements from a 250â€‰m meteorological mast. Wind Energy Science, 2021, 6, 645-661.	3.3	10

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55	Vertical Heat Transfer in the Lower Atmosphere over the Arctic Ocean During Clear-sky Periods. Boundary-Layer Meteorology, 2005, 117, 37-71.	2.3	9
56	Inclusion of Buildingâ€Resolving Capabilities Into the FastEddyÂ® GPUâ€LES Model Using an Immersed Body Force Method. Journal of Advances in Modeling Earth Systems, 2020, 12, e2020MS002141.	3.8	8
57	WRF-LES Simulation of the Boundary Layer Turbulent Processes during the BLLAST Campaign. Atmosphere, 2020, 11, 1149.	2.3	8
58	Performance analysis of a 10-MW wind farm in a hot and dusty desert environment. Part 2: Combined dust and high-temperature effects on the operation of wind turbines. Sustainable Energy Technologies and Assessments, 2021, 47, 101461.	2.7	8
59	Evaluating Methods To Estimate Methane Emissions from Oil and Gas Production Facilities Using LES Simulations. Environmental Science & Technology, 2018, 52, 11206-11214.	10.0	7
60	Mesoscale to Microscale Coupling for Wind Energy Applications: Addressing the Challenges. Journal of Physics: Conference Series, 2020, 1452, 012076.	0.4	7
61	Methods For Estimating The Atmospheric Radiation Release From The Fukushima Dai-Ichi Nuclear Power Plant. Bulletin of the American Meteorological Society, 2013, 94, ES1-ES4.	3.3	6
62	Efficient Graphics Processing Unit Modeling of Streetâ€Scale Weather Effects in Support of Aerial Operations in the Urban Environment. AGU Advances, 2021, 2, e2021AV000432.	5.4	6
63	100 Years of Progress in Applied Meteorology. Part III: Additional Applications. Meteorological Monographs, 2019, 59, 24.1-24.35.	5.0	5
64	Upper Troposphere Smoke Injection From Large Areal Fires. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD034332.	3.3	5
65	Solar Resource Evaluation with Numerical Weather Prediction Models. Green Energy and Technology, 2019, , 199-219.	0.6	4
66	Evaluating the Mobile Flux Plane (MFP) Method to Estimate Methane Emissions Using Large Eddy Simulations (LES). Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD032663.	3.3	0
67	Discussion of paper â€œNumerical generation of inflow turbulence by cell perturbation technique in WRF simulationâ€•by Singh etÂal. (2020). Journal of Wind Engineering and Industrial Aerodynamics, 2021, 211, 104582.	3.9	0
68	Weather Research and Forecastingâ€”Fire Simulated Burned Area and Propagation Direction Sensitivity to Initiation Point Location and Time. Fire, 2022, 5, 58.	2.8	0