

# Branko KosoviÄ

## List of Publications by Year in descending order

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Version: 2024-02-01

68  
papers

3,283  
citations

159585

30  
h-index

149698

56  
g-index

74  
all docs

74  
docs citations

74  
times ranked

2317  
citing authors

#	ARTICLE	IF	CITATIONS
1	“Gray Zone” Simulations Using a Three-Dimensional Planetary Boundary Layer Parameterization in the Weather Research and Forecasting Model. <i>Monthly Weather Review</i> , 2022, 150, 1585-1619.	1.4	14
2	Smoke from 2020 United States wildfires responsible for substantial solar energy forecast errors. <i>Environmental Research Letters</i> , 2022, 17, 034010.	5.2	14
3	A Computationally Efficient Method for Updating Fuel Inputs for Wildfire Behavior Models Using Sentinel Imagery and Random Forest Classification. <i>Remote Sensing</i> , 2022, 14, 1447.	4.0	14
4	Weather Research and Forecasting “Fire Simulated Burned Area and Propagation Direction Sensitivity to Initiation Point Location and Time. <i>Fire</i> , 2022, 5, 58.	2.8	0
5	Evaluating the Mobile Flux Plane (MFP) Method to Estimate Methane Emissions Using Large Eddy Simulations (LES). <i>Journal of Geophysical Research D: Atmospheres</i> , 2021, 126, e2020JD032663.	3.3	0
6	Discussion of paper “Numerical generation of inflow turbulence by cell perturbation technique in WRF simulation” by Singh et al. (2020). <i>Journal of Wind Engineering and Industrial Aerodynamics</i> , 2021, 211, 104582.	3.9	0
7	Evaluation of idealized large-eddy simulations performed with the Weather Research and Forecasting model using turbulence measurements from a 250-m meteorological mast. <i>Wind Energy Science</i> , 2021, 6, 645-661.	3.3	10
8	Efficient Graphics Processing Unit Modeling of Street-Scale Weather Effects in Support of Aerial Operations in the Urban Environment. <i>AGU Advances</i> , 2021, 2, e2021AV000432.	5.4	6
9	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. <i>Sustainable Energy Technologies and Assessments</i> , 2021, 47, 101461.	2.7	8
10	Upper Troposphere Smoke Injection From Large Areal Fires. <i>Journal of Geophysical Research D: Atmospheres</i> , 2021, 126, e2020JD034332.	3.3	5
11	Three-Dimensional Planetary Boundary Layer Parameterization for High-Resolution Mesoscale Simulations. <i>Journal of Physics: Conference Series</i> , 2020, 1452, 012080.	0.4	15
12	Inclusion of Building-Resolving Capabilities Into the FastEddy® GPU-LES Model Using an Immersed Body Force Method. <i>Journal of Advances in Modeling Earth Systems</i> , 2020, 12, e2020MS002141.	3.8	8
13	WRF-LES Simulation of the Boundary Layer Turbulent Processes during the BLLAST Campaign. <i>Atmosphere</i> , 2020, 11, 1149.	2.3	8
14	Mesoscale to Microscale Coupling for Wind Energy Applications: Addressing the Challenges. <i>Journal of Physics: Conference Series</i> , 2020, 1452, 012076.	0.4	7
15	Combining Artificial Intelligence with Physics-Based Methods for Probabilistic Renewable Energy Forecasting. <i>Energies</i> , 2020, 13, 1979.	3.1	26
16	A Comprehensive Wind Power Forecasting System Integrating Artificial Intelligence and Numerical Weather Prediction. <i>Energies</i> , 2020, 13, 1372.	3.1	42
17	Enhancing wildfire spread modelling by building a gridded fuel moisture content product with machine learning. <i>Machine Learning: Science and Technology</i> , 2020, 1, 035010.	5.0	15
18	On Bridging A Modeling Scale Gap: Mesoscale to Microscale Coupling for Wind Energy. <i>Bulletin of the American Meteorological Society</i> , 2019, 100, 2533-2550.	3.3	53

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19	Improving Wind Energy Forecasting through Numerical Weather Prediction Model Development. <i>Bulletin of the American Meteorological Society</i> , 2019, 100, 2201-2220.	3.3	87
20	Turbulence parameterizations for dispersion in sub-kilometer horizontally non-homogeneous flows. <i>Atmospheric Research</i> , 2019, 228, 122-136.	4.1	22
21	Evaluation of the Impact of Horizontal Grid Spacing in Terra Incognita on Coupled Mesoscale–Microscale Simulations Using the WRF Framework. <i>Monthly Weather Review</i> , 2019, 147, 1007-1027.	1.4	35
22	Solar Resource Evaluation with Numerical Weather Prediction Models. <i>Green Energy and Technology</i> , 2019, , 199-219.	0.6	4
23	100 Years of Progress in Applied Meteorology. Part III: Additional Applications. <i>Meteorological Monographs</i> , 2019, 59, 24.1-24.35.	5.0	5
24	The impact of boundary layer turbulence on snow growth and precipitation: Idealized Large Eddy Simulations. <i>Atmospheric Research</i> , 2018, 204, 54-66.	4.1	10
25	An Accurate Fire–Spread Algorithm in the Weather Research and Forecasting Model Using the Level–Set Method. <i>Journal of Advances in Modeling Earth Systems</i> , 2018, 10, 908-926.	3.8	32
26	Toward Low–Level Turbulence Forecasting at Eddy–Resolving Scales. <i>Geophysical Research Letters</i> , 2018, 45, 8655-8664.	4.0	18
27	Evaluating Methods To Estimate Methane Emissions from Oil and Gas Production Facilities Using LES Simulations. <i>Environmental Science &amp; Technology</i> , 2018, 52, 11206-11214.	10.0	7
28	A High Resolution Coupled Fire–Atmosphere Forecasting System to Minimize the Impacts of Wildland Fires: Applications to the Chimney Tops II Wildland Event. <i>Atmosphere</i> , 2018, 9, 197.	2.3	30
29	Building the Sun4Cast System: Improvements in Solar Power Forecasting. <i>Bulletin of the American Meteorological Society</i> , 2018, 99, 121-136.	3.3	53
30	Generation of Inflow Turbulence in Large-Eddy Simulations of Nonneutral Atmospheric Boundary Layers with the Cell Perturbation Method. <i>Monthly Weather Review</i> , 2018, 146, 1889-1909.	1.4	40
31	Large-eddy simulation sensitivities to variations of configuration and forcing parameters in canonical boundary-layer flows for wind energy applications. <i>Wind Energy Science</i> , 2018, 3, 589-613.	3.3	22
32	Comparison of Measured and Numerically Simulated Turbulence Statistics in a Convective Boundary Layer Over Complex Terrain. <i>Boundary-Layer Meteorology</i> , 2017, 163, 69-89.	2.3	49
33	Spatiotemporal Variability of Turbulence Kinetic Energy Budgets in the Convective Boundary Layer over Both Simple and Complex Terrain. <i>Journal of Applied Meteorology and Climatology</i> , 2017, 56, 3285-3302.	1.5	12
34	Blending distributed photovoltaic and demand load forecasts. <i>Solar Energy</i> , 2017, 157, 542-551.	6.1	24
35	Assessing State-of-the-Art Capabilities for Probing the Atmospheric Boundary Layer: The XPIA Field Campaign. <i>Bulletin of the American Meteorological Society</i> , 2017, 98, 289-314.	3.3	59
36	Mesoscale to microscale wind farm flow modeling and evaluation. <i>Wiley Interdisciplinary Reviews: Energy and Environment</i> , 2017, 6, e214.	4.1	58

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37	Improving Wind Predictions in the Marine Atmospheric Boundary Layer through Parameter Estimation in a Single-Column Model. <i>Monthly Weather Review</i> , 2017, 145, 5-24.	1.4	11
38	Variable Generation Power Forecasting as a Big Data Problem. <i>IEEE Transactions on Sustainable Energy</i> , 2017, 8, 725-732.	8.8	61
39	Implementation of a generalized actuator line model for wind turbine parameterization in the Weather Research and Forecasting model. <i>Journal of Renewable and Sustainable Energy</i> , 2017, 9, .	2.0	18
40	Coupled mesoscale LES modeling of a diurnal cycle during the CWEX-13 field campaign: From weather to boundary layer eddies. <i>Journal of Advances in Modeling Earth Systems</i> , 2017, 9, 1572-1594.	3.8	82
41	A methodology for the design and testing of atmospheric boundary layer models for wind energy applications. <i>Wind Energy Science</i> , 2017, 2, 35-54.	3.3	24
42	Exploring Vertical Turbulence Structure in Neutrally and Stably Stratified Flows Using the Weather Research and Forecasting Large-Eddy Simulation (WRF-LES) Model. <i>Boundary-Layer Meteorology</i> , 2016, 161, 355-374.	2.3	12
43	Simulating effects of a wind turbine array using LES and RANS. <i>Journal of Advances in Modeling Earth Systems</i> , 2016, 8, 1376-1390.	3.8	45
44	The Role of Unresolved Clouds on Short-Range Global Horizontal Irradiance Predictability. <i>Monthly Weather Review</i> , 2016, 144, 3099-3107.	1.4	53
45	Limitations of One-Dimensional Mesoscale PBL Parameterizations in Reproducing Mountain-Wave Flows. <i>Journals of the Atmospheric Sciences</i> , 2016, 73, 2603-2614.	1.7	25
46	Investigating wind turbine impacts on near-wake flow using profiling lidar data and large-eddy simulations with an actuator disk model. <i>Journal of Renewable and Sustainable Energy</i> , 2015, 7, .	2.0	48
47	A stochastic perturbation method to generate inflow turbulence in large-eddy simulation models: Application to neutrally stratified atmospheric boundary layers. <i>Physics of Fluids</i> , 2015, 27, .	4.0	67
48	Resolved Turbulence Characteristics in Large-Eddy Simulations Nested within Mesoscale Simulations Using the Weather Research and Forecasting Model. <i>Monthly Weather Review</i> , 2014, 142, 806-831.	1.4	86
49	Large eddy simulation of wind turbine wake dynamics in the stable boundary layer using the Weather Research and Forecasting Model. <i>Journal of Renewable and Sustainable Energy</i> , 2014, 6, .	2.0	69
50	Implementation of a generalized actuator disk wind turbine model into the weather research and forecasting model for large-eddy simulation applications. <i>Journal of Renewable and Sustainable Energy</i> , 2014, 6, 013104.	2.0	69
51	Nesting Turbulence in an Offshore Convective Boundary Layer Using Large-Eddy Simulations. <i>Boundary-Layer Meteorology</i> , 2014, 151, 453-478.	2.3	36
52	Meteorology for Coastal/Offshore Wind Energy in the United States: Recommendations and Research Needs for the Next 10 Years. <i>Bulletin of the American Meteorological Society</i> , 2014, 95, 515-519.	3.3	46
53	Eulerian dispersion modeling with WRF-LES of plume impingement in neutrally and stably stratified turbulent boundary layers. <i>Atmospheric Environment</i> , 2014, 99, 571-581.	4.1	14
54	Convectively Induced Secondary Circulations in Fine-Grid Mesoscale Numerical Weather Prediction Models. <i>Monthly Weather Review</i> , 2014, 142, 3284-3302.	1.4	119

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55	Bridging the Transition from Mesoscale to Microscale Turbulence in Numerical Weather Prediction Models. <i>Boundary-Layer Meteorology</i> , 2014, 153, 409-440.	2.3	131
56	Methods For Estimating The Atmospheric Radiation Release From The Fukushima Dai-Ichi Nuclear Power Plant. <i>Bulletin of the American Meteorological Society</i> , 2013, 94, ES1-ES4.	3.3	6
57	Transition and Equilibration of Neutral Atmospheric Boundary Layer Flow in One-Way Nested Large-Eddy Simulations Using the Weather Research and Forecasting Model. <i>Monthly Weather Review</i> , 2013, 141, 918-940.	1.4	53
58	Implementation and Evaluation of Dynamic Subfilter-Scale Stress Models for Large-Eddy Simulation Using WRF*. <i>Monthly Weather Review</i> , 2012, 140, 266-284.	1.4	71
59	A Large-Eddy Simulation Study of the Influence of Subsidence on the Stably Stratified Atmospheric Boundary Layer. <i>Boundary-Layer Meteorology</i> , 2010, 134, 1.	2.3	16
60	Implementation of a Nonlinear Subfilter Turbulence Stress Model for Large-Eddy Simulation in the Advanced Research WRF Model. <i>Monthly Weather Review</i> , 2010, 138, 4212-4228.	1.4	125
61	An Intercomparison of Large-Eddy Simulations of the Stable Boundary Layer. <i>Boundary-Layer Meteorology</i> , 2006, 118, 247-272.	2.3	417
62	Vertical Heat Transfer in the Lower Atmosphere over the Arctic Ocean During Clear-sky Periods. <i>Boundary-Layer Meteorology</i> , 2005, 117, 37-71.	2.3	9
63	â€œEvolution of a Storm-driven Cloudy Boundary Layer in the Arcticâ€™. <i>Boundary-Layer Meteorology</i> , 2005, 117, 213-230.	2.3	17
64	Subgrid-scale modeling for large-eddy simulations of compressible turbulence. <i>Physics of Fluids</i> , 2002, 14, 1511-1522.	4.0	95
65	A Large Eddy Simulation Study of a Quasi-Steady, Stably Stratified Atmospheric Boundary Layer. <i>Journals of the Atmospheric Sciences</i> , 2000, 57, 1052-1068.	1.7	233
66	An intercomparison of radiatively driven entrainment and turbulence in a smoke cloud, as simulated by different numerical models. <i>Quarterly Journal of the Royal Meteorological Society</i> , 1999, 125, 391-423.	2.7	159
67	Subgrid-scale modelling for the large-eddy simulation of high-Reynolds-number boundary layers. <i>Journal of Fluid Mechanics</i> , 1997, 336, 151-182.	3.4	229
68	Similarity of structure-function parameters in the stably stratified boundary layer. <i>Boundary-Layer Meteorology</i> , 1994, 71, 277-296.	2.3	20