Rob Stoll

List of Publications by Year
in descending order

31 papers	947 citations	567281 15 h-index	454955 30 g-index
31 all docs	31 docs citations	31 times ranked	801 citing authors

#	Article	IF	Citations
1	Dynamic subgrid-scale models for momentum and scalar fluxes in large-eddy simulations of neutrally stratified atmospheric boundary layers over heterogeneous terrain. Water Resources Research, 2006, 42, .	4.2	137
2	Large-Eddy Simulation of the Stable Atmospheric Boundary Layer using Dynamic Models with Different Averaging Schemes. Boundary-Layer Meteorology, 2007, 126, 1-28.	2.3	89
3	Turbulence in Sparse, Organized Vegetative Canopies: A Large-Eddy Simulation Study. Boundary-Layer Meteorology, 2013, 147, 369-400.	2.3	72
4	Effect of Roughness on Surface Boundary Conditions for Large-Eddy Simulation. Boundary-Layer Meteorology, 2006, 118, 169-187.	2.3	64
5	Large-Eddy Simulation of the Atmospheric Boundary Layer. Boundary-Layer Meteorology, 2020, 177, 541-581.	2.3	63
6	Scalable Tools for Generating Synthetic Isotropic Turbulence with Arbitrary Spectra. AIAA Journal, 2017, 55, 327-331.	2.6	57
7	The Ebb and Flow of Airborne Pathogens: Monitoring and Use in Disease Management Decisions. Phytopathology, 2016, 106, 420-431.	2.2	54
8	Evaluation of dynamic subgrid-scale models in large-eddy simulations of neutral turbulent flow over a two-dimensional sinusoidal hill. Atmospheric Environment, 2007, 41, 2719-2728.	4.1	53
9	Surface Heterogeneity Effects on Regional-Scale Fluxes in Stable Boundary Layers: Surface Temperature Transitions. Journals of the Atmospheric Sciences, 2009, 66, 412-431.	1.7	50
10	A new three-dimensional energy balance model for complex plant canopy geometries: Model development and improved validation strategies. Agricultural and Forest Meteorology, 2016, 218-219, 146-160.	4.8	38
11	Effect of vegetative canopy architecture on vertical transport of massless particles. Atmospheric Environment, 2014, 95, 480-489.	4.1	34
12	Experimental validation of a long-distance transport model for plant pathogens: Application to Fusarium graminearum. Agricultural and Forest Meteorology, 2015, 203, 118-130.	4.8	30
13	The accuracy of the compressible Reynolds equation for predicting the local pressure in gas-lubricated textured parallel slider bearings. Tribology International, 2014, 72, 83-89.	5.9	26
14	Comparative metrics for computational approaches in non-uniform street-canyon flows. Building and Environment, 2019, 158, 16-27.	6.9	20
15	Comprehensive Evaluation of Fast-Response, Reynolds-Averaged Navierâ€“Stokes, and Large-Eddy Simulation Methods Against High-Spatial-Resolution Wind-Tunnel Data in Step-Down Street Canyons. Boundary-Layer Meteorology, 2017, 164, 217-247.	2.3	17
16	A numerical study of the impact of vegetation on mean and turbulence fields in a European-city neighbourhood. Building and Environment, 2020, 186, 107293.	6.9	17
17	Mean and Turbulent Flow Statistics in a Trellised Agricultural Canopy. Boundary-Layer Meteorology, 2017, 165, 113-143.	2.3	16
18	Utilizing dynamic parallelism in CUDA to accelerate a 3D red-black successive over relaxation wind-field solver. Environmental Modelling and Software, 2021, 137, 104958.	4.5	16

#	Article	IF	Citations
19	Surface Heterogeneity Effects on Regional-Scale Fluxes in the Stable Boundary Layer: Aerodynamic Roughness Length Transitions. Boundary-Layer Meteorology, 2013, 149, 277-301.	2.3	15
20	An experimental study of momentum and heavy particle transport in a trellised agricultural canopy. Agricultural and Forest Meteorology, 2015, 211-212, 100-114.	4.8	14
21	Improving measurement technology for the design of sustainable cities. Measurement Science and Technology, 2017, 28, 092001.	2.6	11
22	Evaluation of the QUIC-URB wind solver and QESRadiant radiation-transfer model using a dense array of urban meteorological observations. Urban Climate, 2018, 24, 657-674.	5.7	8
23	Development and evaluation of an isolated-tree flow model for neutral-stability conditions. Urban Climate, 2022, 42, 101083.	5.7	8
24	Heavy particle transport in a trellised agricultural canopy during non-row-aligned winds. Agricultural and Forest Meteorology, 2018, 256-257, 125-136.	4.8	7
25	A Theoretically Consistent Framework for Modelling Lagrangian Particle Deposition in Plant Canopies. Boundary-Layer Meteorology, 2018, 167, 509-520.	2.3	6
26	QES-Fire: a dynamically coupled fast-response wildfire model. International Journal of Wildland Fire, 2022, 31, 306-325.	2.4	6
27	Quantifying Turbulence Heterogeneity in a Vineyard Using Eddy-Covariance and Scintillometer Measurements. Boundary-Layer Meteorology, 2022, 184, 479-504.	2.3	6
28	Momentum and Turbulent Transport in Sparse, Organized Vegetative Canopies. Boundary-Layer Meteorology, 2022, 184, 1-24.	2.3	5
29	Quantifying effects of the built environment on solar irradiance availability at building rooftops. Journal of Building Performance Simulation, 2020, 13, 195-208.	2.0	4
30	Errors in the Estimation of Leaf Area Density From Aerial LiDAR Data: Influence of Statistical Sampling and Heterogeneity. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-14.	6.3	4
31	Adaptation and validation of a voxel based energy transport model for conifer species. Urban Climate, 2021, 39, 100967.	5.7	0