

# Marc B Parlange

## List of Publications by Year in descending order

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74  
papers

5,052  
citations

101543

36  
h-index

88630

70  
g-index

74  
all docs

74  
docs citations

74  
times ranked

4164  
citing authors

#	ARTICLE	IF	CITATIONS
1	Scrambling and Reorientation of Classical Atmospheric Boundary Layer Turbulence in Hurricane Winds. <i>Geophysical Research Letters</i> , 2021, 48, e2020GL091695.	4.0	9
2	Sweeping Effects Modify Taylor's Frozen Turbulence Hypothesis for Scalars in the Roughness Sublayer. <i>Geophysical Research Letters</i> , 2021, 48, e2021GL093746.	4.0	5
3	A Local Similarity Function for Katabatic Flows Derived from Field Observations Over Steep and Shallow Angled Slopes. <i>Geophysical Research Letters</i> , 2021, 48, e2021GL095479.	4.0	2
4	A comparison of near-surface potential temperature variance budgets for unstable atmospheric flows with contrasting vegetation cover flat surfaces and a gentle slope. <i>Environmental Fluid Mechanics</i> , 2020, 20, 1251-1279.	1.6	6
5	Preferential Deposition of Snow and Dust Over Hills: Governing Processes and Relevant Scales. <i>Journal of Geophysical Research D: Atmospheres</i> , 2019, 124, 7951-7974.	3.3	22
6	Volume Averaging for Urban Canopies. <i>Boundary-Layer Meteorology</i> , 2019, 173, 349-372.	2.3	29
7	Signatures of Air-Wave Interactions Over a Large Lake. <i>Boundary-Layer Meteorology</i> , 2018, 167, 445-468.	2.3	21
8	Modulation of Mean Wind and Turbulence in the Atmospheric Boundary Layer by Baroclinicity. <i>Journals of the Atmospheric Sciences</i> , 2018, 75, 3797-3821.	1.7	17
9	Katabatic Flow: A Closed-Form Solution with Spatially-Varying Eddy Diffusivities. <i>Boundary-Layer Meteorology</i> , 2017, 162, 307-317.	2.3	12
10	Direct numerical simulation of turbulent slope flows up to Grashof number. <i>Journal of Fluid Mechanics</i> , 2017, 829, 589-620.	3.4	17
11	Perturbations to the Spatial and Temporal Characteristics of the Diurnally-Varying Atmospheric Boundary Layer Due to an Extensive Wind Farm. <i>Boundary-Layer Meteorology</i> , 2017, 162, 255-282.	2.3	29
12	On the variability of the Priestley-Taylor coefficient over water bodies. <i>Water Resources Research</i> , 2016, 52, 150-163.	4.2	37
13	Spatial Characteristics of Roughness Sublayer Mean Flow and Turbulence Over a Realistic Urban Surface. <i>Boundary-Layer Meteorology</i> , 2016, 160, 425-452.	2.3	112
14	Buoyant Turbulent Kinetic Energy Production in Steep-Slope Katabatic Flow. <i>Boundary-Layer Meteorology</i> , 2016, 161, 405-416.	2.3	32
15	Adapting Tilt Corrections and the Governing Flow Equations for Steep, Fully Three-Dimensional, Mountainous Terrain. <i>Boundary-Layer Meteorology</i> , 2016, 159, 539-565.	2.3	35
16	Field study on drainage densities and rescaled width functions in a high-altitude alpine catchment. <i>Hydrological Processes</i> , 2016, 30, 2138-2152.	2.6	11
17	Controls on the diurnal streamflow cycles in two subbasins of an alpine headwater catchment. <i>Water Resources Research</i> , 2015, 51, 3403-3418.	4.2	35
18	Wind turbines and water in irrigated areas. <i>Agricultural Water Management</i> , 2015, 152, 299-300.	5.6	2

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19	Suppressed convective rainfall by agricultural expansion in southeastern Burkina Faso. <i>Water Resources Research</i> , 2015, 51, 5521-5530.	4.2	8
20	Large Wind Farms and the Scalar Flux over an Heterogeneously Rough Land Surface. <i>Boundary-Layer Meteorology</i> , 2014, 153, 471-495.	2.3	15
21	Effects of the water retention curve on evaporation from arid soils. <i>Geophysical Research Letters</i> , 2014, 41, 3110-3116.	4.0	24
22	Modelling Small-Scale Drifting Snow with a Lagrangian Stochastic Model Based on Large-Eddy Simulations. <i>Boundary-Layer Meteorology</i> , 2014, 153, 117-139.	2.3	45
23	Momentum balance of katabatic flow on steep slopes covered with short vegetation. <i>Geophysical Research Letters</i> , 2014, 41, 4761-4768.	4.0	28
24	Engineering forum/panel discussion. , 2014, , .		0
25	Flow during the evening transition over steep Alpine slopes. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2013, 139, 607-624.	2.7	66
26	Geomorphic signatures on Brutsaert base flow recession analysis. <i>Water Resources Research</i> , 2013, 49, 5462-5472.	4.2	70
27	Flow over Hills: A Large-Eddy Simulation of the Bolund Case. <i>Boundary-Layer Meteorology</i> , 2013, 148, 177-194.	2.3	64
28	Evaporation from a shallow water table: Diurnal dynamics of water and heat at the surface of drying sand. <i>Water Resources Research</i> , 2013, 49, 4022-4034.	4.2	49
29	Similarity Scaling Over a Steep Alpine Slope. <i>Boundary-Layer Meteorology</i> , 2013, 147, 401-419.	2.3	62
30	Are atmospheric surface layer flows ergodic?. <i>Geophysical Research Letters</i> , 2013, 40, 3342-3346.	4.0	9
31	Coherent structures and the $k^{-1}$ spectral behaviour. <i>Physics of Fluids</i> , 2013, 25, 125107.	4.0	38
32	Could electrical conductivity replace water level in rating curves for alpine streams?. <i>Water Resources Research</i> , 2013, 49, 343-351.	4.2	23
33	Heated Optical Fiber for Distributed Soil Moisture Measurements: A Lysimeter Experiment. <i>Vadose Zone Journal</i> , 2012, 11, vzj2011.0199.	2.2	77
34	Ecohydrology: a fast moving field. <i>Ecohydrology</i> , 2012, 5, 519-519.	2.4	0
35	Measuring sensible heat flux with high spatial density. , 2012, , .		1
36	Carbon monoxide as a tracer of gas transport in snow and other natural porous media. <i>Geophysical Research Letters</i> , 2012, 39, .	4.0	13

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37	Evapotranspiration: A process driving mass transport and energy exchange in the soil-plant-atmosphere-climate system. <i>Reviews of Geophysics</i> , 2012, 50, .	23.0	334
38	On the use of spatially discrete data to compute energy and mass balance. <i>Water Resources Research</i> , 2012, 48, .	4.2	3
39	The Effect of Scale on the Applicability of Taylor's Frozen Turbulence Hypothesis in the Atmospheric Boundary Layer. <i>Boundary-Layer Meteorology</i> , 2012, 143, 379-391.	2.3	58
40	Evolution of superficial lake water temperature profile under diurnal radiative forcing. <i>Water Resources Research</i> , 2011, 47, .	4.2	44
41	Hydrologic response of an alpine watershed: Application of a meteorological wireless sensor network to understand streamflow generation. <i>Water Resources Research</i> , 2011, 47, .	4.2	42
42	Towards oscillation-free implementation of the immersed boundary method with spectral-like methods. <i>Journal of Computational Physics</i> , 2011, 230, 8179-8191.	3.8	26
43	A Simple Model for the Afternoon and Early Evening Decay of Convective Turbulence Over Different Land Surfaces. <i>Boundary-Layer Meteorology</i> , 2011, 141, 301-324.	2.3	56
44	Large eddy simulation study of scalar transport in fully developed wind-turbine array boundary layers. <i>Physics of Fluids</i> , 2011, 23, .	4.0	145
45	Field study of the dynamics and modelling of subgrid-scale turbulence in a stable atmospheric surface layer over a glacier. <i>Journal of Fluid Mechanics</i> , 2010, 665, 480-515.	3.4	58
46	Geometric Alignments of the Subgrid-Scale Force in the Atmospheric Boundary Layer. <i>Boundary-Layer Meteorology</i> , 2009, 132, 1-9.	2.3	9
47	The Effects of Building Representation and Clustering in Large-Eddy Simulations of Flows in Urban Canopies. <i>Boundary-Layer Meteorology</i> , 2009, 132, 415-436.	2.3	72
48	Estimation of urban sensible heat flux using a dense wireless network of observations. <i>Environmental Fluid Mechanics</i> , 2009, 9, 635-653.	1.6	47
49	Estimation of wet surface evaporation from sensible heat flux measurements. <i>Water Resources Research</i> , 2009, 45, .	4.2	29
50	Albedo effect on radiative errors in air temperature measurements. <i>Water Resources Research</i> , 2009, 45, .	4.2	82
51	Subgrid-Scale Dynamics of Water Vapour, Heat, and Momentum over a Lake. <i>Boundary-Layer Meteorology</i> , 2008, 128, 205-228.	2.3	40
52	A Hybrid Spectral/Finite-Volume Algorithm for Large-Eddy Simulation of Scalars in the Atmospheric Boundary Layer. <i>Boundary-Layer Meteorology</i> , 2008, 128, 473-484.	2.3	41
53	Turbulent kinetic energy budgets in a model canopy: comparisons between LES and wind-tunnel experiments. <i>Environmental Fluid Mechanics</i> , 2008, 8, 73-95.	1.6	45
54	Influence of sediment settling velocity on mechanistic soil erosion modeling. <i>Water Resources Research</i> , 2008, 44, .	4.2	37

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55	Scale dependence of subgrid-scale model coefficients: An a priori study. <i>Physics of Fluids</i> , 2008, 20, 115106.	4.0	38
56	The Local Structure of Atmospheric Turbulence and Its Effect on the Smagorinsky Model for Large Eddy Simulation. <i>Journals of the Atmospheric Sciences</i> , 2007, 64, 1941-1958.	1.7	18
57	Limitation of the transport capacity approach in sediment transport modeling. <i>Water Resources Research</i> , 2007, 43, .	4.2	34
58	A comparative quadrant analysis of turbulence in a plant canopy. <i>Water Resources Research</i> , 2007, 43, .	4.2	72
59	Modeling turbulent flow over fractal trees with renormalized numerical simulation. <i>Journal of Computational Physics</i> , 2007, 225, 427-448.	3.8	126
60	Large-eddy simulation of plant canopy flows using plant-scale representation. <i>Boundary-Layer Meteorology</i> , 2007, 124, 183-203.	2.3	67
61	Concentration profiles of particles settling in the neutral and stratified atmospheric boundary layer. <i>Boundary-Layer Meteorology</i> , 2007, 125, 25-38.	2.3	22
62	Modeling Flow around Bluff Bodies and Predicting Urban Dispersion Using Large Eddy Simulation. <i>Environmental Science &amp; Technology</i> , 2006, 40, 2653-2662.	10.0	160
63	Numerical study of dynamic Smagorinsky models in large-eddy simulation of the atmospheric boundary layer: Validation in stable and unstable conditions. <i>Water Resources Research</i> , 2006, 42, .	4.2	56
64	Distributed fiber-optic temperature sensing for hydrologic systems. <i>Water Resources Research</i> , 2006, 42, .	4.2	472
65	Fiber optics opens window on stream dynamics. <i>Geophysical Research Letters</i> , 2006, 33, .	4.0	227
66	A scale-dependent Lagrangian dynamic model for large eddy simulation of complex turbulent flows. <i>Physics of Fluids</i> , 2005, 17, 025105.	4.0	508
67	Pathology of Monin-Obukhov similarity in the stable boundary layer. <i>Journal of Geophysical Research</i> , 2005, 110, n/a-n/a.	3.3	47
68	Editorial: Future of Water Resources Research. <i>Water Resources Research</i> , 2005, 41, .	4.2	5
69	On Monin-Obukhov Similarity In The Stable Atmospheric Boundary Layer. <i>Boundary-Layer Meteorology</i> , 2001, 99, 225-248.	2.3	197
70	A scale-dependent dynamic model for large-eddy simulation: application to a neutral atmospheric boundary layer. <i>Journal of Fluid Mechanics</i> , 2000, 415, 261-284.	3.4	473
71	Surface length scales and shear stress: Implications for land-atmosphere interaction over complex terrain. <i>Water Resources Research</i> , 1999, 35, 2121-2132.	4.2	211
72	NDVI relationship to monthly evaporation. <i>Geophysical Research Letters</i> , 1998, 25, 1753-1756.	4.0	38

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73	The random sweeping decorrelation hypothesis in stratified turbulent flows. Fluid Dynamics Research, 1995, 16, 275-295.	1.3	13
74	Regional scale evaporation and the atmospheric boundary layer. Reviews of Geophysics, 1995, 33, 99.	23.0	75