Chris J Keylock

List of Publications by Year
in descending order

69 papers	1,904 citations	270111 25 h-index	312153 41 g-index
74 all docs	74 docs citations	74 times ranked	1817 citing authors

#	Article	IF	Citations
1	Evaluating Landscape Complexity and the Contribution of Nonâ€Locality to Geomorphometry. Journal of Geophysical Research F: Earth Surface, 2021, 126, e2020JF005765.	1.0	2
2	A joint velocity-intermittency analysis reveals similarity in the vertical structure of atmospheric and hydrospheric canopy turbulence. Environmental Fluid Mechanics, 2020, 20, 77-101.	0.7	7
3	HÃ¶lderâ€Conditioned Hypsometry: A Refinement toÂaÂClassical Approach for the Characterization ofÂTopography. Water Resources Research, 2020, 56, e2019WR025412.	1.7	5
4	Turbulence at the Lee bound: maximally non-normal vortex filaments and the decay of a local dissipation rate. Journal of Fluid Mechanics, 2019, 881, 283-312.	1.4	3
5	The importance of non-normal contributions to velocity gradient tensor dynamics for spatially developing, inhomogeneous, turbulent flows. Journal of Turbulence, 2019, 20, 577-598.	0.5	7
6	(Multi)wavelets increase both accuracy and efficiency of standard Godunov-type hydrodynamic models. Advances in Water Resources, 2019, 129, 31-55.	1.7	10
7	Implications of the selection of a particular modal decomposition technique for the analysis of shallow flows. Journal of Hydraulic Research/De Recherches Hydrauliques, 2018, 56, 796-805.	0.7	31
8	Gradual multifractal reconstruction of time-series: Formulation of the method and an application to the coupling between stock market indices and their HÃ¶lder exponents. Physica D: Nonlinear Phenomena, 2018, 368, 1-9.	1.3	7
9	Hypothesis Testing For Nonlinear Phenomena In The Geosciences Using Synthetic, Surrogate Data. Earth and Space Science, 2018, 6, 41.	1.1	12
10	Refining the processing of paired time series data to improve velocity estimation in snow flows. Cold Regions Science and Technology, 2018, 151, 75-88.	1.6	3
11	The Schur decomposition of the velocity gradient tensor for turbulent flows. Journal of Fluid Mechanics, 2018, 848, 876-905.	1.4	21
12	Multifractal surrogate-data generation algorithm that preserves pointwise HÃ¶lder regularity structure, with initial applications to turbulence. Physical Review E, 2017, 95, 032123.	0.8	17
13	Using modal decompositions to explain the sudden expansion of the mixing layer in the wake of a groyne in a shallow flow. Advances in Water Resources, 2017, 107, 451-459.	1.7	27
14	Synthetic velocity gradient tensors and the identification of statistically significant aspects of the structure of turbulence. Physical Review Fluids, 2017, 2, .	1.0	4
15	JSPS Supported Symposium on Interscale Transfers and Flow Topology in Equilibrium and Non-equilibrium Turbulence (Sheffield, UK, September 2014). Fluid Dynamics Research, 2016, 48, 020001.	0.6	4
16	A rapid non-iterative proper orthogonal decomposition based outlier detection and correction for PIV data. Measurement Science and Technology, 2016, 27, 125303.	1.4	33
17	Large eddy simulation of the velocity-intermittency structure for flow over a field of symmetric dunes. Journal of Fluid Mechanics, 2016, 805, 656-685.	1.4	14
18	The coupling between inner and outer scales in a zero pressure boundary layer evaluated using a HÃ¶lder exponent framework. Fluid Dynamics Research, 2016, 48, 021405.	0.6	6

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19	Wavelet phase analysis of two velocity components to infer the structure of interscale transfers in a turbulent boundary-layer. Fluid Dynamics Research, 2016, 48, 021406.	0.6	0
20	Flow resistance in natural, turbulent channel flows: The need for a fluvial fluid mechanics. Water Resources Research, 2015, 51, 4374-4390.	1.7	37
21	Practical implementation of a 16-channel C-band phased array radar receiver. , 2015, , .		2
22	Gradual wavelet reconstruction of the velocity increments for turbulent wakes. Physics of Fluids, 2015, 27, .	1.6	15
23	Improving the sensitivity and phased array response of FMCW radar for imaging avalanches. , 2014, , .		4
24	Quadrant/octant sequencing and the role of coherent structures in bed load sediment entrainment. Journal of Geophysical Research F: Earth Surface, 2014, 119, 264-286.	1.0	75
25	Looking inside an avalanche using a novel radar system. Geology Today, 2014, 30, 21-25.	0.3	3
26	The complexity of gravel bed river topography examined with gradual wavelet reconstruction. Journal of Geophysical Research F: Earth Surface, 2014, 119, 682-700.	1.0	21
27	Discussion of â€œTesting Stationarity with Wavelet-Based Surrogatesâ€• by Megan McCullough and Ahsan Kareem. Journal of Engineering Mechanics - ASCE, 2014, 140, 07014001.	1.6	1
28	Two-dimensional radar imaging of flowing avalanches. Cold Regions Science and Technology, 2014, 102, 41-51.	1.6	14
29	Robust classification for the joint velocityâ€intermittency structure of turbulent flow over fixed and mobile bedforms. Earth Surface Processes and Landforms, 2014, 39, 1717-1728.	1.2	38
30	Geographers Count: A Report on Quantitative Methods in Geography. Enhancing Learning in the Social Sciences, 2014, 6, 43-58.	0.4	7
31	The influence of migrating bed forms on the velocityâ€intermittency structure of turbulent flow over a gravel bed. Geophysical Research Letters, 2013, 40, 1351-1355.	1.5	43
32	Highâ€resolution radar measurements of snow avalanches. Geophysical Research Letters, 2013, 40, 727-731.	1.5	40
33	Temporal trends in avalanche activity in the French Alps and subregions: from occurrences and runout altitudes to unsteady return periods. Journal of Glaciology, 2013, 59, 93-114.	1.1	65
34	Quantitative risk and optimal design approaches in the snow avalanche field: Review and extensions. Cold Regions Science and Technology, 2012, 79-80, 1-19.	1.6	35
35	A classification scheme for turbulence based on the velocityâ€intermittency structure with an application to nearâ€wall flow and with implications for bed load transport. Journal of Geophysical Research, 2012, 117, .	3.3	23
36	A resampling method for generating synthetic hydrological time series with preservation of crossâ€correlative structure and higherâ€order properties. Water Resources Research, 2012, 48, .	1.7	28

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37	The application of computational fluid dynamics to natural river channels: Eddy resolving versus mean flow approaches. Geomorphology, 2012, 179, 1-20.	1.1	93
38	The flow structure in the wake of a fractal fence and the absence of an â€œinertial regimeâ€. Environmental Fluid Mechanics, 2012, 12, 227-250.	0.7	25
39	A method for characterising the sensitivity of turbulent flow fields to the structure of inlet turbulence. Journal of Turbulence, 2011, 12, N45.	0.5	21
40	Characterizing the structure of nonlinear systems using gradual wavelet reconstruction. Nonlinear Processes in Geophysics, 2010, 17, 615-632.	0.6	49
41	FMCW radar imaging of avalanche-like snow movements. , 2010, , .		14
42	Introduction to special issue: The future of geomorphology. Progress in Physical Geography, 2010, 34, 261-264.	1.4	4
43	Evaluating the dimensionality and significance of â€œactive periodsâ€•in turbulent environmental flows defined using Lipshitz/HÃ¶lder regularity. Environmental Fluid Mechanics, 2009, 9, 509-523.	0.7	11
44	A criterion for delimiting active periods within turbulent flows. Geophysical Research Letters, 2008, 35, .	1.5	22
45	Improved preservation of autocorrelative structure in surrogate data using an initial wavelet step. Nonlinear Processes in Geophysics, 2008, 15, 435-444.	0.6	12
46	Identifying linear and non-linear behaviour in reduced complexity modelling output using surrogate data methods. Geomorphology, 2007, 90, 356-366.	1.1	7
47	The visualization of turbulence data using a wavelet-based method. Earth Surface Processes and Landforms, 2007, 32, 637-647.	1.2	30
48	Withering geomorphology. Earth Surface Processes and Landforms, 2007, 32, 803-804.	1.2	5
49	A wavelet-based method for surrogate data generation. Physica D: Nonlinear Phenomena, 2007, 225, 219-228.	1.3	48
50	Constrained surrogate time series with preservation of the mean and variance structure. Physical Review E, 2006, 73, 036707.	0.8	51
51	Reforming AS/A2 Physical Geography to Enhance Geographic Scholarship. Geography, 2006, 91, 272-279.	0.2	8
52	Simpson diversity and the Shannon-Wiener index as special cases of a generalized entropy. Oikos, 2005, 109, 203-207.	1.2	332
53	The theoretical foundations and potential for large-eddy simulation (LES) in fluvial geomorphic and sedimentological research. Earth-Science Reviews, 2005, 71, 271-304.	4.0	70
54	Describing the recurrence interval of extreme floods using nonextensive thermodynamics and Tsallis statistics. Advances in Water Resources, 2005, 28, 773-778.	1.7	20

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55	An alternative form for the statistical distribution of extreme avalanche runout distances. Cold Regions Science and Technology, 2005, 42, 185-193.	1.6	33
56	What kind of quantitative methods for what kind of geography?. Area, 2004, 36, 358-366.	1.0	10
57	Mark Melton's geomorphology and geography's quantitative revolution. Transactions of the Institute of British Geographers, 2003, 28, 142-157.	1.8	11
58	The North Atlantic Oscillation and snow avalanching in Iceland. Geophysical Research Letters, 2003, 30, n/a-n/a.	1.5	30
59	A new method for avalanche hazard mapping using a combination of statistical and deterministic models. Natural Hazards and Earth System Sciences, 2002, 2, 239-245.	1.5	27
60	Snow avalanche impact pressure - vulnerability relations for use in risk assessment. Canadian Geotechnical Journal, 2001, 38, 227-238.	1.4	46
61	Application of statistical and hydraulic-continuum dense-snow avalanche models to five real European sites. Cold Regions Science and Technology, 2000, 31, 133-149.	1.6	82
62	Evaluation of Topographic Models of Rockfall Travel Distance for Use in Hazard Applications. Arctic, Antarctic, and Alpine Research, 1999, 31, 312-320.	0.4	14
63	Avalanche risk mapping by simulation. Journal of Glaciology, 1999, 45, 303-314.	1.1	38
64	Avalanche risk mapping by simulation. Journal of Glaciology, 1999, 45, 303-314.	1.1	31
65	Title is missing!. Climatic Change, 1999, 41, 259-260.	1.7	4
66	Avalanche risk mapping by simulation. Journal of Glaciology, 1999, 45, 303-314.	1.1	50
67	Evaluation of Topographic Models of Rockfall Travel Distance for Use in Hazard Applications. Arctic, Antarctic, and Alpine Research, 1999, 31, 312.	0.4	12
68	Snow avalanches. Progress in Physical Geography, 1997, 21, 481-500.	1.4	26
69	Dynamics and Complexity. , 0, , 393-404.		0