Keith Beven

List of Publications by Year
in descending order

290 papers	38,086 citations	4388 86 h-index	3407 183 g-index
355 all docs	355 docs citations	355 times ranked	18186 citing authors

#	Article	IF	Citations
1	The future of distributed models: Model calibration and uncertainty prediction. Hydrological Processes, 1992, 6, 279-298.	2.6	3,485
2	Macropores and water flow in soils. Water Resources Research, 1982, 18, 1311-1325.	4.2	2,128
3	A manifesto for the equifinality thesis. Journal of Hydrology, 2006, 320, 18-36.	5.4	1,809
4	Equifinality, data assimilation, and uncertainty estimation in mechanistic modelling of complex environmental systems using the GLUE methodology. Journal of Hydrology, 2001, 249, 11-29.	5.4	1,716
5	Changing ideas in hydrology â€" The case of physically-based models. Journal of Hydrology, 1989, 105, 157-172.	5.4	1,286
6	The prediction of hillslope flow paths for distributed hydrological modelling using digital terrain models. Hydrological Processes, 1991, 5, 59-79.	2.6	1,173
7	Prophecy, reality and uncertainty in distributed hydrological modelling. Advances in Water Resources, 1993, 16, 41-51.	3.8	977
8	Sensitivity analysis of environmental models: A systematic review with practical workflow. Environmental Modelling and Software, 2016, 79, 214-232.	4.5	926
9	Bayesian Estimation of Uncertainty in Runoff Prediction and the Value of Data: An Application of the GLUE Approach. Water Resources Research, 1996, 32, 2161-2173.	4.2	658
10	Macropores and water flow in soils revisited. Water Resources Research, 2013, 49, 3071-3092.	4.2	614
11	â€œPanta Rheiâ€"Everything Flowsâ€: Change in hydrology and societyâ€"The IAHS Scientific Decade 2013â€"2022. Hydrological Sciences Journal, 2013, 58, 1256-1275.	2.6	569
12	Effects of spatial variability and scale with implications to hydrologic modeling. Journal of Hydrology, 1988, 102, 29-47.	5.4	558
13	How far can we go in distributed hydrological modelling?. Hydrology and Earth System Sciences, 2001, 5, 1-12.	4.9	528
14	Twenty-three unsolved problems in hydrology (UPH) â€" a community perspective. Hydrological Sciences Journal, 2019, 64, 1141-1158.	2.6	474
15	TOPMODEL: A critique. Hydrological Processes, 1997, 11, 1069-1085.	2.6	468
16	On hydrologic similarity: 2. A scaled model of storm runoff production. Water Resources Research, 1987, 23, 2266-2278.	4.2	378
17	Uncertainty in the calibration of effective roughness parameters in HEC-RAS using inundation and downstream level observations. Journal of Hydrology, 2005, 302, 46-69.	5.4	364
18	Towards a coherent philosophy for modelling the environment. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2002, 458, 2465-2484.	2.1	326

#	Article	IF	Citations
19	Debatesâ€"The future of hydrological sciences: A (common) path forward? A call to action aimed at understanding velocities, celerities and residence time distributions of the headwater hydrograph. Water Resources Research, 2014, 50, 5342-5350.	4.2	325
20	Influence of uncertain boundary conditions and model structure on flood inundation predictions. Advances in Water Resources, 2006, 29, 1430-1449.	3.8	321
21	Quantifying contributions to storm runoff through end-member mixing analysis and hydrologic measurements at the Panola Mountain Research Watershed (Georgia, USA). Hydrological Processes, 2001, 15, 1903-1924.	2.6	299
22	Towards an alternative blueprint for a physically based digitally simulated hydrologic response modelling system. Hydrological Processes, 2002, 16, 189-206.	2.6	296
23	A dynamic TOPMODEL. Hydrological Processes, 2001, 15, 1993-2011.	2.6	289
24	A sensitivity analysis of the Penman-Monteith actual evapotranspiration estimates. Journal of Hydrology, 1979, 44, 169-190.	5.4	276
25	Toward a Generalization of the TOPMODEL Concepts: Topographic Indices of Hydrological Similarity. Water Resources Research, 1996, 32, 2135-2145.	4.2	261
26	Similarity and scale in catchment storm response. Reviews of Geophysics, 1990, 28, 1-18.	23.0	257
27	Catchment geomorphology and the dynamics of runoff contributing areas. Journal of Hydrology, 1983, 65, 139-158.	5.4	251
28	GLUE: 20â€‰years on. Hydrological Processes, 2014, 28, 5897-5918.	2.6	239
29	Uncertainty and equifinality in calibrating distributed roughness coefficients in a flood propagation model with limited data. Advances in Water Resources, 1998, 22, 349-365.	3.8	236
30	The sensitivity of hydrological models to spatial rainfall patterns: an evaluation using observed data. Journal of Hydrology, 1994, 159, 305-333.	5.4	233
31	So just why would a modeller choose to be incoherent?. Journal of Hydrology, 2008, 354, 15-32.	5.4	221
32	Multi-method global sensitivity analysis of flood inundation models. Advances in Water Resources, 2008, 31, 1-14.	3.8	219
33	Data-based mechanistic modelling and the rainfall-flow non-linearity. Environmetrics, 1994, 5, 335-363.	1.4	216
34	Kinematic subsurface stormflow. Water Resources Research, 1981, 17, 1419-1424.	4.2	213
35	Flood-plain mapping: a critical discussion of deterministic and probabilistic approaches. Hydrological Sciences Journal, 2010, 55, 364-376.	2.6	213
36	Towards integrated environmental models of everywhere: uncertainty, data and modelling as a learning process. Hydrology and Earth System Sciences, 2007, 11, 460-467.	4.9	205

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37	WATER FLOW IN SOIL MACROPORES I. AN EXPERIMENTAL APPROACH. Journal of Soil Science, 1981, 32, 1-13.	1.2	203
38	Kinematic Wave Approximation to Infiltration Into Soils With Sorbing Macropores. Water Resources Research, 1985, 21, 990-996.	4.2	197
39	Searching for the Holy Grail of scientific hydrology: <i>Q_t</i>=(<i>S, R,) Tj ETQq1 1 0.784314 rg Sciences, 2006, 10, 609-618.	4.9	197
40	Facets of uncertainty: epistemic uncertainty, non-stationarity, likelihood, hypothesis testing, and communication. Hydrological Sciences Journal, 2016, 61, 1652-1665.	2.6	197
41	On constraining the predictions of a distributed model: The incorporation of fuzzy estimates of saturated areas into the calibration process. Water Resources Research, 1998, 34, 787-797.	4.2	196
42	Linking parameters across scales: Subgrid parameterizations and scale dependent hydrological models. Hydrological Processes, 1995, 9, 507-525.	2.6	193
43	An Agenda for Land Surface Hydrology Research and a Call for the Second International Hydrological Decade. Bulletin of the American Meteorological Society, 1999, 80, 2043-2058.	3.3	188
44	A restatement of the natural science evidence concerning catchment-based â€˜naturalâ€™ flood management in the UK. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2017, 473, 20160706.	2.1	184
45	On red herrings and real herrings: disinformation and information in hydrological inference. Hydrological Processes, 2011, 25, 1676-1680.	2.6	176
46	Development of a European flood forecasting system. International Journal of River Basin Management, 2003, 1, 49-59.	2.7	172
47	Equifinality and uncertainty in physically based soil erosion models: application of the GLUE methodology to WEPP-the Water Erosion Prediction Project-for sites in the UK and USA. Earth Surface Processes and Landforms, 2000, 25, 825-845.	2.5	160
48	A limits of acceptability approach to model evaluation and uncertainty estimation in flood frequency estimation by continuous simulation: Skalka catchment, Czech Republic. Water Resources Research, 2009, 45, .	4.2	157
49	Use of spatially distributed water table observations to constrain uncertainty in a rainfallâ€“runoff model. Advances in Water Resources, 1998, 22, 305-317.	3.8	156
50	On undermining the science?. Hydrological Processes, 2006, 20, 3141-3146.	2.6	156
51	Including spatially variable effective soil depths in TOPMODEL. Journal of Hydrology, 1997, 202, 158-172.	5.4	150
52	Multi-period and multi-criteria model conditioning to reduce prediction uncertainty in an application of TOPMODEL within the GLUE framework. Journal of Hydrology, 2007, 332, 316-336.	5.4	147
53	On hydrological heterogeneity â€” Catchment morphology and catchment response. Journal of Hydrology, 1988, 100, 353-375.	5.4	145
54	Bayesian updating of flood inundation likelihoods conditioned on flood extent data. Hydrological Processes, 2004, 18, 3347-3370.	2.6	144

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55	On subsurface stormflow: Predictions with simple kinematic theory for saturated and unsaturated flows. Water Resources Research, 1982, 18, 1627-1633.	4.2	140
56	Towards a limits of acceptability approach to the calibration of hydrological models: Extending observation error. Journal of Hydrology, 2009, 367, 93-103.	5.4	137
57	On subsurface stormflow: an analysis of response times. Hydrological Sciences Journal, 1982, 27, 505-521.	2.6	135
58	Estimation of flood inundation probabilities as conditioned on event inundation maps. Water Resources Research, 2003, 39, .	4.2	132
59	Comment on â€œHyperresolution global land surface modeling: Meeting a grand challenge for monitoring Earth's terrestrial waterâ€•by Eric F. Wood et al.. Water Resources Research, 2012, 48, .	4.2	132
60	Infiltration into a class of vertically non-uniform soils. Hydrological Sciences Journal, 1984, 29, 425-434.	2.6	131
61	Dispersion parameters for undisturbed partially saturated soil. Journal of Hydrology, 1993, 143, 19-43.	5.4	125
62	Fuzzy set approach to calibrating distributed flood inundation models using remote sensing observations. Hydrology and Earth System Sciences, 2007, 11, 739-752.	4.9	125
63	A hydraulic model to predict drought-induced mortality in woody plants: an application to climate change in the Mediterranean. Ecological Modelling, 2002, 155, 127-147.	2.5	124
64	On the colour and spin of epistemic error (and what we might do about it). Hydrology and Earth System Sciences, 2011, 15, 3123-3133.	4.9	122
65	Towards identifying sources of subsurface flow: A comparison of components identified by a physically based runoff model and those determined by chemical mixing techniques. Hydrological Processes, 1992, 6, 199-214.	2.6	121
66	A physically based model of heterogeneous hillslopes: 2. Effective hydraulic conductivities. Water Resources Research, 1989, 25, 1227-1233.	4.2	120
67	Sensitivity to space and time resolution of a hydrological model using digital elevation data. Hydrological Processes, 1995, 9, 69-81.	2.6	120
68	Flood frequency estimation by continuous simulation under climate change (with uncertainty). Hydrology and Earth System Sciences, 2000, 4, 393-405.	4.9	117
69	On the concept of model structural error. Water Science and Technology, 2005, 52, 167-175.	2.5	117
70	Runoff Production and Flood Frequency in Catchments of Order n: An Alternative Approach. Water Science and Technology Library, 1986, , 107-131.	0.3	115
71	Flood frequency estimation by continuous simulation of subcatchment rainfalls and discharges with the aim of improving dam safety assessment in a large basin in the Czech Republic. Journal of Hydrology, 2004, 292, 153-172.	5.4	115
72	Probabilistic flood risk mapping including spatial dependence. Hydrological Processes, 2013, 27, 1349-1363.	2.6	112

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73	Uncertainty in hydrograph separations based on geochemical mixing models. Journal of Hydrology, 2002, 255, 90-106.	5.4	108
74	Modelling everything everywhere: a new approach to decisionâ€making for water management under uncertainty. Freshwater Biology, 2012, 57, 124-132.	2.4	108
75	A physically based model of heterogeneous hillslopes: 1. Runoff production. Water Resources Research, 1989, 25, 1219-1226.	4.2	105
76	Bayesian estimation of uncertainty in land surface-atmosphere flux predictions. Journal of Geophysical Research, 1997, 102, 23991-23999.	3.3	105
77	Spatial Variability of Soil Phosphorus in Relation to the Topographic Index and Critical Source Areas. Journal of Environmental Quality, 2005, 34, 2263-2277.	2.0	104
78	Flood frequency prediction for data limited catchments in the Czech Republic using a stochastic rainfall model and TOPMODEL. Journal of Hydrology, 1997, 195, 256-278.	5.4	103
79	Developing a Translational Discourse to Communicate Uncertainty in Flood Risk between Science and the Practitioner. Ambio, 2007, 36, 692-704.	5.5	103
80	Robert E. Horton's perceptual model of infiltration processes. Hydrological Processes, 2004, 18, 3447-3460.	2.6	102
81	Base cation concentrations in subsurface flow from a forested hillslope: The role of flushing frequency. Water Resources Research, 1998, 34, 3535-3544.	4.2	100
82	Models as multiple working hypotheses: hydrological simulation of tropical alpine wetlands. Hydrological Processes, 2011, 25, 1784-1799.	2.6	99
83	ASSESSING THE EFFECT OF SPATIAL PATTERN OF PRECIPITATION IN MODELING STREAM FLOW HYDROGRAPHS. Journal of the American Water Resources Association, 1982, 18, 823-829.	2.4	98
84	Using interactive recession curve analysis to specify a general catchment storage model. Hydrology and Earth System Sciences, 1997, 1, 101-113.	4.9	98
85	Grasping the unavoidable subjectivity in calibration of flood inundation models: A vulnerability weighted approach. Journal of Hydrology, 2007, 333, 275-287.	5.4	96
86	A guide to good practice in modeling semantics for authors and referees. Water Resources Research, 2013, 49, 5092-5098.	4.2	94
87	On the generalized kinematic routing method. Water Resources Research, 1979, 15, 1238-1242.	4.2	93
88	Causal models as multiple working hypotheses about environmental processes. Comptes Rendus - Geoscience, 2012, 344, 77-88.	1.2	93
89	On doing better hydrological science. Hydrological Processes, 2008, 22, 3549-3553.	2.6	91
90	New method developed for studying flow on hillslopes. Eos, 1996, 77, 465-472.	0.1	90

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91	Modelling the effect of fire-exclusion and prescribed fire on wildfire size in Mediterranean ecosystems. Ecological Modelling, 2005, 183, 397-409.	2.5	90
92	Preferential flows and travel time distributions: defining adequate hypothesis tests for hydrological process models. Hydrological Processes, 2010, 24, 1537-1547.	2.6	90
93	The Geochemical Evolution of Riparian Ground Water in a Forested Piedmont Catchment. Ground Water, 2003, 41, 913-925.	1.3	88
94	Flood frequency estimation by continuous simulation for a catchment treated as ungauged (with) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	4.2	87
95	Comment on â€œHydrological forecasting uncertainty assessment: Incoherence of the GLUE methodologyâ€• by Pietro Mantovan and Ezio Todini. Journal of Hydrology, 2007, 338, 315-318.	5.4	86
96	Uncertainty assessment of a process-based integrated catchment model of phosphorus. Stochastic Environmental Research and Risk Assessment, 2009, 23, 991-1010.	4.0	86
97	Data assimilation and adaptive forecasting of water levels in the river Severn catchment, United Kingdom. Water Resources Research, 2006, 42, .	4.2	84
98	Dynamic real-time prediction of flood inundation probabilities. Hydrological Sciences Journal, 1998, 43, 181-196.	2.6	83
99	Throughflow and solute transport in an isolated sloping soil block in a forested catchment. Journal of Hydrology, 1991, 124, 81-99.	5.4	82
100	I believe in climate change but how precautionary do we need to be in planning for the future?. Hydrological Processes, 2011, 25, 1517-1520.	2.6	81
101	Towards the use of catchment geomorphology in flood frequency predictions. Earth Surface Processes and Landforms, 1987, 12, 69-82.	2.5	79
102	On the Variation of Infiltration Into a Homogeneous Soil Matrix Containing a Population of Macropores. Water Resources Research, 1986, 22, 383-388.	4.2	78
103	Application of a Generalized TOPMODEL to the Small Ringelbach Catchment, Vosges, France. Water Resources Research, 1996, 32, 2147-2159.	4.2	77
104	Modelling the hydrological response of mediterranean catchments, Prades, Catalonia. The use of distributed models as aids to hypothesis formulation. Hydrological Processes, 1997, 11, 1287-1306.	2.6	76
105	On the concept of delivery of sediment and nutrients to stream channels. Hydrological Processes, 2005, 19, 551-556.	2.6	75
106	Concepts of Information Content and Likelihood in Parameter Calibration for Hydrological Simulation Models. Journal of Hydrologic Engineering - ASCE, 2015, 20, .	1.9	75
107	Hyperresolution information and hyperresolution ignorance in modelling the hydrology of the land surface. Science China Earth Sciences, 2015, 58, 25-35.	5.2	74
108	Informal likelihood measures in model assessment: Theoretic development and investigation. Advances in Water Resources, 2008, 31, 1087-1100.	3.8	73

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109	The seventh facet of uncertainty: wrong assumptions, unknowns and surprises in the dynamics of humanâ€“water systems. Hydrological Sciences Journal, 2016, 61, 1748-1758.	2.6	73
110	Primary weathering rates, water transit times, and concentrationâ€discharge relations: A theoretical analysis for the critical zone. Water Resources Research, 2017, 53, 942-960.	4.2	73
111	The hydrological response of headwater and sideslope areas / La rÃ©ponse hydrologique des zones de cours supÃ©rieurs et des zones de pente latÃ©rale. Hydrological Sciences Bulletin Des Sciences Hydrologiques, 1978, 23, 419-437.	0.2	72
112	Analytical compensation between DTM grid resolution and effective values of staurated hydraulic conductivity within the TOPMODEL framework. Hydrological Processes, 1997, 11, 1331-1346.	2.6	71
113	Vadose Zone Flow Model Uncertainty as Conditioned on Geophysical Data. Ground Water, 2003, 41, 119-127.	1.3	71
114	Temporal variability in phosphorus transfers: classifying concentrationâ€“discharge event dynamics. Hydrology and Earth System Sciences, 2004, 8, 88-97.	4.9	70
115	A modelling framework for evaluation of the hydrological impacts of nature-based approaches to flood risk management, with application to in-channel interventions across a 29-km² scale catchment in the United Kingdom. Hydrological Processes, 2017, 31, 1734-1748.	2.6	69
116	An evaluation of three stochastic rainfall models. Journal of Hydrology, 2000, 228, 130-149.	5.4	67
117	Visualization approaches for communicating realâ€time flood forecasting level and inundation information. Journal of Flood Risk Management, 2010, 3, 140-150.	3.3	67
118	A data based mechanistic approach to nonlinear flood routing and adaptive flood level forecasting. Advances in Water Resources, 2008, 31, 1048-1056.	3.8	66
119	Climate Change: The Need to Consider Human Forcings Besides Greenhouse Gases. Eos, 2009, 90, 413-413.	0.1	64
120	Integrated modeling of flow and residence times at the catchment scale with multiple interacting pathways. Water Resources Research, 2013, 49, 4738-4750.	4.2	63
121	Sensitivity analysis based on regional splits and regression trees (SARS-RT). Environmental Modelling and Software, 2006, 21, 976-990.	4.5	62
122	On hypothesis testing in hydrology: Why falsification of models is still a really good idea. Wiley Interdisciplinary Reviews: Water, 2018, 5, e1278.	6.5	62
123	Rainfall-runoff modelling of a humid tropical catchment: the TOPMODEL approach. Hydrological Processes, 2002, 16, 231-253.	2.6	61
124	How to make advances in hydrological modelling. Hydrology Research, 2019, 50, 1481-1494.	2.7	61
125	Hillslope hydrographs by the finite element method. Earth Surfaces Processes, 1977, 2, 13-28.	0.7	58
126	Using internal catchment information to reduce the uncertainty of discharge and baseflow predictions. Advances in Water Resources, 2007, 30, 808-823.	3.8	58

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127	Conditioning uncertainty in ecological models: Assessing the impact of fire management strategies. Ecological Modelling, 2007, 207, 34-44.	2.5	58
128	Interflow. , 1989, , 191-219.		58
129	Discharge and water table predictions using a generalised TOPMODEL formulation. Hydrological Processes, 1997, 11, 1145-1167.	2.6	57
130	Equifinality, sensitivity and predictive uncertainty in the estimation of critical loads. Science of the Total Environment, 1999, 236, 191-214.	8.0	57
131	Do we need a Community Hydrological Model?. Water Resources Research, 2015, 51, 7777-7784.	4.2	57
132	Equifinality and the Problem of Robust Calibration in Nitrogen Budget Simulations. Soil Science Society of America Journal, 1999, 63, 1934-1941.	2.2	56
133	Flood frequency estimation by continuous simulation (with likelihood based uncertainty estimation). Hydrology and Earth System Sciences, 2000, 4, 23-34.	4.9	56
134	On hypothesis testing in hydrology. Hydrological Processes, 2001, 15, 1655-1657.	2.6	56
135	Multivariate seasonal period model rejection within the generalised likelihood uncertainty estimation procedure. Water Science and Application, 2003, , 69-87.	0.3	55
136	GLUE Based Assessment on the Overall Predictions of a MIKE SHE Application. Water Resources Management, 2009, 23, 1325-1349.	3.9	55
137	Regionalization as a learning process. Water Resources Research, 2009, 45, .	4.2	55
138	Uncertainty estimation of endâ€member mixing using generalized likelihood uncertainty estimation (GLUE), applied in a lowland catchment. Water Resources Research, 2013, 49, 4792-4806.	4.2	54
139	A history of TOPMODEL. Hydrology and Earth System Sciences, 2021, 25, 527-549.	4.9	54
140	Comment on â€œPursuing the method of multiple working hypotheses for hydrological modelingâ€• by P. Clark et al.. Water Resources Research, 2012, 48, .	4.2	53
141	Dynamic TOPMODEL: A new implementation in R and its sensitivity to time and space steps. Environmental Modelling and Software, 2015, 72, 155-172.	4.5	53
142	Estimation of evapotranspiration at the landscape scale: A fuzzy disaggregation approach. Water Resources Research, 1997, 33, 2929-2938.	4.2	52
143	Flow and flow routing in upland channel networks / L'Ã©coulement et le calcul du cheminement de l'Ã©coulement dans les rÃ©seaux des canaux montagneux. Hydrological Sciences Bulletin Des Sciences Hydrologiques, 1979, 24, 303-325.	0.2	51
144	Uncertainty in the estimation of critical loads: A practical methodology. Water, Air, and Soil Pollution, 1997, 98, 297-316.	2.4	51

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145	Modelling hydrologic responses in a small forested catchment (Panola Mountain, Georgia, USA): a comparison of the original and a new dynamic TOPMODEL. Hydrological Processes, 2003, 17, 345-362.	2.6	50
146	A Century of Denial: Preferential and Nonequilibrium Water Flow in Soils, 1864â€•1984. Vadose Zone Journal, 2018, 17, 1-17.	2.2	50
147	Deep learning, hydrological processes and the uniqueness of place. Hydrological Processes, 2020, 34, 3608-3613.	2.6	50
148	On hydrologic similarity: 3. A dimensionless flood frequency model using a generalized geomorphologic unit hydrograph and partial area runoff generation. Water Resources Research, 1990, 26, 43-58.	4.2	49
149	Modelling extreme rainfalls using a modified random pulse Bartlettâ€“Lewis stochastic rainfall model (with uncertainty). Advances in Water Resources, 2000, 24, 203-211.	3.8	49
150	Multi-objective parameter conditioning of a three-source wheat canopy model. Agricultural and Forest Meteorology, 2004, 122, 39-63.	4.8	49
151	Multiple sources of predictive uncertainty in modeled estimates of net ecosystem CO2 exchange. Ecological Modelling, 2009, 220, 3259-3270.	2.5	49
152	On model uncertainty, risk and decision making. Hydrological Processes, 2000, 14, 2605-2606.	2.6	48
153	Downstream changes in DOC: Inferring contributions in the face of model uncertainties. Water Resources Research, 2014, 50, 514-525.	4.2	48
154	The Predictive Uncertainty of Land Surface Fluxes in Response to Increasing Ambient Carbon Dioxide. Journal of Climate, 2001, 14, 2551-2562.	3.2	47
155	The limits of splitting: Hydrology. Science of the Total Environment, 1996, 183, 89-97.	8.0	46
156	Smiling in the rain: Seven reasons to be positive about uncertainty in hydrological modelling. Hydrological Processes, 2013, 27, 1117-1122.	2.6	46
157	Embracing equifinality with efficiency: Limits of Acceptability sampling using the DREAM(LOA) algorithm. Journal of Hydrology, 2018, 559, 954-971.	5.4	46
158	Surface water hydrologyâ€"runoff generation and basin structure. Reviews of Geophysics, 1983, 21, 721-730.	23.0	45
159	The introduction of macroscale hydrological complexity into land surface-atmosphere transfer models and the effect on planetary boundary layer development. Journal of Hydrology, 1995, 166, 421-444.	5.4	45
160	A discrete particle representation of hillslope hydrology: hypothesis testing in reproducing a tracer experiment at GÃ¥rdsjÃ¶n, Sweden. Hydrological Processes, 2011, 25, 3602-3612.	2.6	45
161	Communicating uncertainty in flood inundation mapping: a case study. International Journal of River Basin Management, 2015, 13, 285-295.	2.7	45
162	Epistemic uncertainties and natural hazard risk assessment â€“ Part 1: A review of different natural hazard areas. Natural Hazards and Earth System Sciences, 2018, 18, 2741-2768.	3.6	45

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163	Testing the distributed water table predictions of TOPMODEL (allowing for uncertainty in model) Tj ETQq1 1 0.784314 rgBT /Overlock 1	4.2	44
164	Towards a methodology for testing models as hypotheses in the inexact sciences. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2019, 475, 20180862.	2.1	44
165	A history of the concept of time of concentration. Hydrology and Earth System Sciences, 2020, 24, 2655-2670.	4.9	44
166	WATER FLOW IN SOIL MACROPORES III. A STATISTICAL APPROACH. Journal of Soil Science, 1981, 32, 31-39.	1.2	43
167	Inferences about solute transport in macroporous forest soils from time series models. Geoderma, 1990, 46, 249-262.	5.1	43
168	Input of fecal coliform bacteria to an upland stream channel in the Yorkshire Dales. Water Resources Research, 1992, 28, 1869-1876.	4.2	42
169	Regional water balance modelling using flow-duration curves with observational uncertainties. Hydrology and Earth System Sciences, 2014, 18, 2993-3013.	4.9	42
170	Comments on generalised likelihood uncertainty estimation. Reliability Engineering and System Safety, 2006, 91, 1315-1321.	8.9	41
171	Adaptive forecasting of phytoplankton communities. Water Research, 2018, 134, 74-85.	11.3	41
172	Implications of model uncertainty for the mapping of hillslope-scale soil erosion predictions. Earth Surface Processes and Landforms, 2001, 26, 1333-1352.	2.5	40
173	Barriers to progress in distributed hydrological modelling. Hydrological Processes, 2015, 29, 2074-2078.	2.6	40
174	Perceptual models of uncertainty for socio-hydrological systems: a flood risk change example. Hydrological Sciences Journal, 2017, 62, 1705-1713.	2.6	40
175	Microâ€; Mesoâ€; Macroporosity and Channeling Flow Phenomena in Soils. Soil Science Society of America Journal, 1981, 45, 1245-1245.	2.2	39
176	Conditioning a multiple-patch SVAT Model using uncertain time-space estimates of latent heat fluxes as inferred from remotely sensed data. Water Resources Research, 1999, 35, 2751-2761.	4.2	38
177	The Future of Distributed Modelling. Hydrological Processes, 2002, 16, 169-172.	2.6	37
178	Observational data and scale-dependent parameterizations: explorations using a virtual hydrological reality. Hydrological Processes, 2002, 16, 293-312.	2.6	37
179	Controls on Catchment-Scale Patterns of Phosphorus in Soil, Streambed Sediment, and Stream Water. Journal of Environmental Quality, 2007, 36, 694-708.	2.0	37
180	Epistemic uncertainties and natural hazard risk assessment â€“ PartÂ 2: What should constitute good practice?. Natural Hazards and Earth System Sciences, 2018, 18, 2769-2783.	3.6	37

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181	Comment on â€œBayesian recursive parameter estimation for hydrologic modelsâ€•by M. Thiemann, M. Trosset, H. Gupta, and S. Sorooshian. Water Resources Research, 2003, 39, .	4.2	36
182	Functional classification and evaluation of hydrographs based on Multicomponent Mapping (Mx). International Journal of River Basin Management, 2004, 2, 89-100.	2.7	36
183	So how much of your error is epistemic? Lessons from Japan and Italy. Hydrological Processes, 2013, 27, 1677-1680.	2.6	36
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