Thorsten Wagener

List of Publications by Year
in descending order

177 papers	20,349 citations	10389 72 h-index	11939 134 g-index
257 all docs	257 docs citations	257 times ranked	13810 citing authors

#	Article	IF	Citations
1	Sensitivity analysis of environmental models: A systematic review with practical workflow. Environmental Modelling and Software, 2016, 79, 214-232.	4.5	926
2	A decade of Predictions in Ungauged Basins (PUB)â€”a review. Hydrological Sciences Journal, 2013, 58, 1198-1255.	2.6	821
3	Karst water resources in a changing world: Review of hydrological modeling approaches. Reviews of Geophysics, 2014, 52, 218-242.	23.0	610
4	Catchment Classification and Hydrologic Similarity. Geography Compass, 2007, 1, 901-931.	2.7	602
5	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
6	Model Parameter Estimation Experiment (MOPEX): An overview of science strategy and major results from the second and third workshops. Journal of Hydrology, 2006, 320, 3-17.	5.4	537
7	Drought in the Anthropocene. Nature Geoscience, 2016, 9, 89-91.	12.9	537
8	Reconciling theory with observations: elements of a diagnostic approach to model evaluation. Hydrological Processes, 2008, 22, 3802-3813.	2.6	511
9	The future of hydrology: An evolving science for a changing world. Water Resources Research, 2010, 46, .	4.2	487
10	Framework for Understanding Structural Errors (FUSE): A modular framework to diagnose differences between hydrological models. Water Resources Research, 2008, 44, .	4.2	461
11	A Matlab toolbox for Global Sensitivity Analysis. Environmental Modelling and Software, 2015, 70, 80-85.	4.5	454
12	Towards reduced uncertainty in conceptual rainfall-runoff modelling: dynamic identifiability analysis. Hydrological Processes, 2003, 17, 455-476.	2.6	448
13	A framework for development and application of hydrological models. Hydrology and Earth System Sciences, 2001, 5, 13-26.	4.9	443
14	Regionalization of constraints on expected watershed response behavior for improved predictions in ungauged basins. Advances in Water Resources, 2007, 30, 1756-1774.	3.8	417
15	Catchment classification: empirical analysis of hydrologic similarity based on catchment function in the eastern USA. Hydrology and Earth System Sciences, 2011, 15, 2895-2911.	4.9	405
16	A processâ€based diagnostic approach to model evaluation: Application to the NWS distributed hydrologic model. Water Resources Research, 2008, 44, .	4.2	399
17	A simple and efficient method for global sensitivity analysis based onÂcumulative distribution functions. Environmental Modelling and Software, 2015, 67, 1-11.	4.5	317
18	Linking science with environmental decision making: Experiences from an integrated modeling approach to supporting sustainable water resources management. Environmental Modelling and Software, 2008, 23, 846-858.	4.5	292

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19	Drought in a human-modified world: reframing drought definitions, understanding, and analysis approaches. Hydrology and Earth System Sciences, 2016, 20, 3631-3650.	4.9	289
20	Parameter estimation and regionalization for continuous rainfall-runoff models including uncertainty. Journal of Hydrology, 2006, 320, 132-154.	5.4	287
21	A formal framework for scenario development in support of environmental decision-making. Environmental Modelling and Software, 2009, 24, 798-808.	4.5	284
22	Hillslope Hydrology in Global Change Research and Earth System Modeling. Water Resources Research, 2019, 55, 1737-1772.	4.2	281
23	Comparing sensitivity analysis methods to advance lumped watershed model identification and evaluation. Hydrology and Earth System Sciences, 2007, 11, 793-817.	4.9	272
24	Model identification for hydrological forecasting under uncertainty. Stochastic Environmental Research and Risk Assessment, 2005, 19, 378-387.	4.0	269
25	Ensemble predictions of runoff in ungauged catchments. Water Resources Research, 2005, 41, .	4.2	253
26	Calibration of a semi-distributed hydrologic model for streamflow estimation along a river system. Journal of Hydrology, 2004, 298, 112-135.	5.4	234
27	Global Sensitivity Analysis of environmental models: Convergence and validation. Environmental Modelling and Software, 2016, 79, 135-152.	4.5	227
28	Intercomparison of Rain Gauge, Radar, and Satellite-Based Precipitation Estimates with Emphasis on Hydrologic Forecasting. Journal of Hydrometeorology, 2005, 6, 497-517.	1.9	217
29	Sensitivity-guided reduction of parametric dimensionality for multi-objective calibration of watershed models. Advances in Water Resources, 2009, 32, 1154-1169.	3.8	175
30	How effective and efficient are multiobjective evolutionary algorithms at hydrologic model calibration?. Hydrology and Earth System Sciences, 2006, 10, 289-307.	4.9	174
31	Investigating controls on the thermal sensitivity of Pennsylvania streams. Hydrological Processes, 2012, 26, 771-785.	2.6	162
32	A novel framework for discharge uncertainty quantification applied to 500 <scp>UK</scp> gauging stations. Water Resources Research, 2015, 51, 5531-5546.	4.2	159
33	Characterization of watershed model behavior across a hydroclimatic gradient. Water Resources Research, 2008, 44, .	4.2	158
34	Monte Carlo sensitivity analysis of land surface parameters using the Variable Infiltration Capacity model. Journal of Geophysical Research, 2007, 112, .	3.3	153
35	Convergence of approaches toward reducing uncertainty in predictions in ungauged basins. Water Resources Research, 2011, 47, .	4.2	146
36	Numerical and visual evaluation of hydrological and environmental models using the Monte Carlo analysis toolbox. Environmental Modelling and Software, 2007, 22, 1021-1033.	4.5	144

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37	Technical Note: Method of Morris effectively reduces the computational demands of global sensitivity analysis for distributed watershed models. Hydrology and Earth System Sciences, 2013, 17, 2893-2903.	4.9	142
38	Climate-vegetation-soil interactions and long-term hydrologic partitioning: signatures of catchment co-evolution. Hydrology and Earth System Sciences, 2013, 17, 2209-2217.	4.9	141
39	Reducing uncertainty in predictions in ungauged basins by combining hydrologic indices regionalization and multiobjective optimization. Water Resources Research, 2008, 44, .	4.2	137
40	Understanding uncertainty in distributed flash flood forecasting for semiarid regions. Water Resources Research, 2008, 44, .	4.2	131
41	Quantifying parameter sensitivity, interaction, and transferability in hydrologically enhanced versions of the Noah land surface model over transition zones during the warm season. Journal of Geophysical Research, 2010, 115, .	3.3	131
42	Enhanced groundwater recharge rates and altered recharge sensitivity to climate variability through subsurface heterogeneity. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 2842-2847.	7.1	128
43	Advancing the identification and evaluation of distributed rainfall-runoff models using global sensitivity analysis. Water Resources Research, 2007, 43, .	4.2	126
44	When are multiobjective calibration tradeâ€offs in hydrologic models meaningful?. Water Resources Research, 2012, 48, .	4.2	121
45	Most computational hydrology is not reproducible, so is it really science?. Water Resources Research, 2016, 52, 7548-7555.	4.2	119
46	Ten guidelines for effective data visualization in scientific publications. Environmental Modelling and Software, 2011, 26, 822-827.	4.5	117
47	Timeâ€varying sensitivity analysis clarifies the effects of watershed model formulation on model behavior. Water Resources Research, 2013, 49, 1400-1414.	4.2	115
48	Catchment classification: hydrological analysis of catchment behavior through process-based modeling along a climate gradient. Hydrology and Earth System Sciences, 2011, 15, 3411-3430.	4.9	110
49	Evaluation of nine largeâ€scale hydrological models with respect to the seasonal runoff climatology in Europe. Water Resources Research, 2012, 48, .	4.2	107
50	Comparison of variance-based and moment-independent global sensitivity analysis approaches by application to the SWAT model. Environmental Modelling and Software, 2017, 91, 210-222.	4.5	105
51	Uncertainty in hydrological signatures for gauged and ungauged catchments. Water Resources Research, 2016, 52, 1847-1865.	4.2	104
52	Accelerating advances in continental domain hydrologic modeling. Water Resources Research, 2015, 51, 10078-10091.	4.2	102
53	Evaluation of catchment models. Hydrological Processes, 2003, 17, 3375-3378.	2.6	101
54	The Water Planetary Boundary: Interrogation and Revision. One Earth, 2020, 2, 223-234.	6.8	98

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55	Results of the DMIP 2 Oklahoma experiments. Journal of Hydrology, 2012, 418-419, 17-48.	5.4	97
56	Understanding hydrologic variability across Europe through catchment classification. Hydrology and Earth System Sciences, 2017, 21, 2863-2879.	4.9	97
57	Application of stochastic parameter optimization to the Sacramento Soil Moisture Accounting model. Journal of Hydrology, 2006, 325, 288-307.	5.4	95
58	A trading-space-for-time approach to probabilistic continuous streamflow predictions in a changing climate â€“ accounting for changing watershed behavior. Hydrology and Earth System Sciences, 2011, 15, 3591-3603.	4.9	95
59	Quantifying the importance of spatial resolution and other factors through global sensitivity analysis of a flood inundation model. Water Resources Research, 2016, 52, 9146-9163.	4.2	92
60	Can we model the hydrological impacts of environmental change?. Hydrological Processes, 2007, 21, 3233-3236.	2.6	89
61	A large-scale simulation model to assess karstic groundwater recharge over Europe and the Mediterranean. Geoscientific Model Development, 2015, 8, 1729-1746.	3.6	89
62	CAMELS-GB: hydrometeorological time series and landscape attributes for 671 catchments in Great Britain. Earth System Science Data, 2020, 12, 2459-2483.	9.9	87
63	Illuminating water cycle modifications and Earth system resilience in the Anthropocene. Water Resources Research, 2020, 56, e2019WR024957.	4.2	86
64	Incorporating uncertainty in hydrological predictions for gauged and ungauged basins in southern Africa. Hydrological Sciences Journal, 2012, 57, 1000-1019.	2.6	85
65	Constraining Conceptual Hydrological Models With Multiple Information Sources. Water Resources Research, 2018, 54, 8332-8362.	4.2	85
66	A spatial regularization approach to parameter estimation for a distributed watershed model. Water Resources Research, 2008, 44, .	4.2	84
67	Identifying dominant controls on hydrologic parameter transfer from gauged to ungauged catchments â€“ A comparative hydrology approach. Journal of Hydrology, 2014, 517, 985-996.	5.4	84
68	Advancing catchment hydrology to deal with predictions under change. Hydrology and Earth System Sciences, 2014, 18, 649-671.	4.9	83
69	Calibration of channel depth and friction parameters in the LISFLOOD-FP hydraulic model using medium-resolution SAR data and identifiability techniques. Hydrology and Earth System Sciences, 2016, 20, 4983-4997.	4.9	83
70	Modeling spatiotemporal impacts of hydroclimatic extremes on groundwater recharge at a Mediterranean karst aquifer. Water Resources Research, 2014, 50, 6507-6521.	4.2	82
71	Testing the realism of model structures to identify karst system processes using water quality and quantity signatures. Water Resources Research, 2013, 49, 3345-3358.	4.2	81
72	Distribution-based sensitivity analysis from a generic input-output sample. Environmental Modelling and Software, 2018, 108, 197-207.	4.5	81

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73	A top-down framework for watershed model evaluation and selection under uncertainty. Environmental Modelling and Software, 2009, 24, 901-916.	4.5	79
74	A vulnerability driven approach to identify adverse climate and land use change combinations for critical hydrologic indicator thresholds: Application to a watershed in Pennsylvania, USA. Water Resources Research, 2014, 50, 3409-3427.	4.2	76
75	Characterizing hydrologic change through catchment classification. Hydrology and Earth System Sciences, 2014, 18, 273-285.	4.9	75
76	Variations in surface water-ground water interactions along a headwater mountain stream: Comparisons between transient storage and water balance analyses. Water Resources Research, 2013, 49, 3359-3374.	4.2	71
77	Diagnostic evaluation of multiple hypotheses of hydrological behaviour in a limits-of-acceptability framework for 24 UK catchments. Hydrological Processes, 2014, 28, 6135-6150.	2.6	71
78	Process-based karst modelling to relate hydrodynamic and hydrochemical characteristics to system properties. Hydrology and Earth System Sciences, 2013, 17, 3305-3321.	4.9	70
79	Understanding the timeâ€varying importance of different uncertainty sources in hydrological modelling using global sensitivity analysis. Hydrological Processes, 2016, 30, 3991-4003.	2.6	68
80	Identifiability of transient storage model parameters along a mountain stream. Water Resources Research, 2013, 49, 5290-5306.	4.2	67
81	Multiobjective sensitivity analysis to understand the information content in streamflow observations for distributed watershed modeling. Water Resources Research, 2009, 45, .	4.2	65
82	An argument-driven classification and comparison of reservoir operation optimization methods. Advances in Water Resources, 2019, 128, 74-86.	3.8	65
83	What has Global Sensitivity Analysis ever done for us? A systematic review to support scientific advancement and to inform policy-making in earth system modelling. Earth-Science Reviews, 2019, 194, 1-18.	9.1	65
84	Virtual laboratories: new opportunities for collaborative water science. Hydrology and Earth System Sciences, 2015, 19, 2101-2117.	4.9	63
85	Benchmarking the predictive capability of hydrological models for river flow and flood peak predictions across over 1000Âcatchments in Great Britain. Hydrology and Earth System Sciences, 2019, 23, 4011-4032.	4.9	63
86	The evolution of root-zone moisture capacities after deforestation: a step towards hydrological predictions under change?. Hydrology and Earth System Sciences, 2016, 20, 4775-4799.	4.9	61
87	Identifying parametric controls and dependencies in integrated assessment models using global sensitivity analysis. Environmental Modelling and Software, 2014, 59, 10-29.	4.5	58
88	Simulating Runoff Under Changing Climatic Conditions: A Framework for Model Improvement. Water Resources Research, 2018, 54, 9812-9832.	4.2	58
89	Rainfall characteristics define the value of streamflow observations for distributed watershed model identification. Geophysical Research Letters, 2008, 35, .	4.0	57
90	Risk of groundwater contamination widely underestimated because of fast flow into aquifers. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	53

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91	Dealing with deep uncertainties in landslide modelling for disaster risk reduction under climate change. Natural Hazards and Earth System Sciences, 2017, 17, 225-241.	3.6	52
92	DECIPHeR v1: Dynamic fluxEs and ConnectIvity for Predictions of HydRology. Geoscientific Model Development, 2019, 12, 2285-2306.	3.6	51
93	From maps to movies: high-resolution time-varying sensitivity analysis for spatially distributed watershed models. Hydrology and Earth System Sciences, 2013, 17, 5109-5125.	4.9	50
94	Characterizing and reducing equifinality by constraining a distributed catchment model with regional signatures, local observations, and process understanding. Hydrology and Earth System Sciences, 2017, 21, 3325-3352.	4.9	49
95	Riparian hydraulic gradient and streamâ€groundwater exchange dynamics in steep headwater valleys. Journal of Geophysical Research F: Earth Surface, 2013, 118, 953-969.	2.8	46
96	Dynamics of water fluxes and storages in an Alpine karst catchment under current and potential future climate conditions. Hydrology and Earth System Sciences, 2018, 22, 3807-3823.	4.9	46
97	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
98	Modelling the hydrological impacts of rural land use change. Hydrology Research, 2014, 45, 737-754.	2.7	44
99	Predictions in ungauged basins as a catalyst for multidisciplinary hydrology. Eos, 2004, 85, 451.	0.1	43
100	Dynamic identifiability analysis of the transient storage model for solute transport in rivers. Journal of Hydroinformatics, 2002, 4, 199-211.	2.4	43
101	Taking the pulse of hydrology education. Hydrological Processes, 2007, 21, 1789-1792.	2.6	40
102	Decision Analysis for Management of Natural Hazards. Annual Review of Environment and Resources, 2016, 41, 489-516.	13.4	40
103	Risk-based modelling of surface water quality: a case study of the Charles River, Massachusetts. Journal of Hydrology, 2003, 274, 225-247.	5.4	38
104	GMD perspective: The quest to improve the evaluation of groundwater representation in continental- to global-scale models. Geoscientific Model Development, 2021, 14, 7545-7571.	3.6	38
105	Human impact on longâ€term organic carbon export to rivers. Journal of Geophysical Research G: Biogeosciences, 2017, 122, 947-965.	3.0	37
106	Epistemic uncertainties and natural hazard risk assessment â€“ PartÂ2: What should constitute good practice?. Natural Hazards and Earth System Sciences, 2018, 18, 2769-2783.	3.6	37
107	A new approach to visualizing time-varying sensitivity indices for environmental model diagnostics across evaluation time-scales. Environmental Modelling and Software, 2014, 51, 190-194.	4.5	36
108	Vulnerability of bridges to scour: insights from an international expert elicitation workshop. Natural Hazards and Earth System Sciences, 2017, 17, 1393-1409.	3.6	36

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109	Probabilistic Projections of Anthropogenic Climate Change Impacts on Precipitation for the Mid-Atlantic Region of the United States*. Journal of Climate, 2012, 25, 5273-5291.	3.2	34
110	Modelâ€based analysis of the influence of catchment properties on hydrologic partitioning across five mountain headwater subcatchments. Water Resources Research, 2015, 51, 4109-4136.	4.2	34
111	V2Karst V1.1: a parsimonious large-scale integrated vegetationâ€“recharge model to simulate the impact of climate and land cover change in karst regions. Geoscientific Model Development, 2018, 11, 4933-4964.	3.6	34
112	Developing observational methods to drive future hydrological science: Can we make a start as a community?. Hydrological Processes, 2020, 34, 868-873.	2.6	34
113	What is the hydrologically effective area of a catchment?. Environmental Research Letters, 2020, 15, 104024.	5.2	33
114	Bridging river basin scales and processes to assess human-climate impacts and the terrestrial hydrologic system. Water Resources Research, 2006, 42, .	4.2	32
115	Probabilistic Projections of Climate Change for the Mid-Atlantic Region of the United States: Validation of Precipitation Downscaling during the Historical Era*. Journal of Climate, 2012, 25, 509-526.	3.2	31
116	It takes a community to raise a hydrologist: the Modular Curriculum for Hydrologic Advancement (MOCHA). Hydrology and Earth System Sciences, 2012, 16, 3405-3418.	4.9	31
117	Investigating temporal field sampling strategies for site-specific calibration of three soil moistureâ€“neutron intensity parameterisation methods. Hydrology and Earth System Sciences, 2015, 19, 3203-3216.	4.9	30
118	Identification of rainfallâ€“runoff models for operational applications / Identification de modÃ¨les pluieâ€“dÃ©bit pour des applications opÃ©rationnelles. Hydrological Sciences Journal, 2005, 50, .	2.6	29
119	Identification and evaluation of watershed models. Water Science and Application, 2003, , 29-47.	0.3	28
120	Unraveling complex hydrogeological processes in Andean basins in southâ€central Chile: An integrated assessment to understand hydrological dissimilarity. Hydrological Processes, 2016, 30, 4934-4943.	2.6	28
121	Grand Challenges for Hydrology Education in the 21st Century. Journal of Hydrologic Engineering - ASCE, 2015, 20, .	1.9	27
122	A software tool to assess uncertainty in transient-storage model parameters using Monte Carlo simulations. Freshwater Science, 2017, 36, 195-217.	1.8	27
123	Model performance, model robustness, and model fitness scores: A new method for identifying good landâ€surface models. Geophysical Research Letters, 2008, 35, .	4.0	26
124	Hydrological impacts of climate change in gauged and ungauged watersheds of the Olifants basin: a trading-space-for-time approach. Hydrological Sciences Journal, 2014, 59, 29-55.	2.6	26
125	Matlab/R workflows to assess critical choices in Global Sensitivity Analysis using the SAFE toolbox. MethodsX, 2019, 6, 2258-2280.	1.6	26
126	On doing hydrology with dragons: Realizing the value of perceptual models and knowledge accumulation. Wiley Interdisciplinary Reviews: Water, 2021, 8, e1550.	6.5	26

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127	Model signatures and aridity indices enhance the accuracy of water balance estimations in a data-scarce Eastern Mediterranean catchment. Journal of Hydrology: Regional Studies, 2015, 4, 487-501.	2.4	25
128	Identification of the Controlling Mechanism for Predicting Critical Loads in Elastomeric Bearings. Journal of Structural Engineering, 2013, 139, .	3.4	24
129	Preface "Hydrology education in a changing world". Hydrology and Earth System Sciences, 2013, 17, 1393-1399.	4.9	24
130	Knowledge gaps in our perceptual model of Great Britain's hydrology. Hydrological Processes, 2021, 35, e14288.	2.6	22
131	Influence of constant rate versus slug injection experiment type on parameter identifiability in a 1â€Ð transient storage model for stream solute transport. Water Resources Research, 2013, 49, 1184-1188.	4.2	20
132	Advances in the identification and evaluation of complex environmental systems models. Journal of Hydroinformatics, 2009, 11, 266-281.	2.4	18
133	Land surface model performance using cosmic-ray and point-scale soil moisture measurements for calibration. Hydrology and Earth System Sciences, 2017, 21, 2843-2861.	4.9	18
134	A mechanistic hydro-epidemiological model of liver fluke risk. Journal of the Royal Society Interface, 2018, 15, 20180072.	3.4	18
135	Accounting for dependencies in regionalized signatures for predictions in ungauged catchments. Hydrology and Earth System Sciences, 2016, 20, 887-901.	4.9	17
136	Chapter Two Good Modelling Practice. Developments in Integrated Environmental Assessment, 2008, 3, 15-31.	0.0	16
137	Hydrological Modeling. , 2011, , 435-457.		16
138	Has urbanization changed ecological streamflow characteristics in Maine (USA)?. Hydrological Sciences Journal, 2012, 57, 1337-1354.	2.6	15
139	Parameter sensitivity of a watershed-scale flood forecasting model as a function of modelling time-step. Hydrology Research, 2013, 44, 334-350.	2.7	15
140	Inaction and climate stabilization uncertainties lead to severe economic risks. Climatic Change, 2014, 127, 463-474.	3.6	15
141	How Important Are Model Structural and Contextual Uncertainties when Estimating the Optimized Performance of Water Resource Systems?. Water Resources Research, 2019, 55, 2170-2193.	4.2	15
142	How successfully is open-source research software adopted? Results and implications of surveying the users of a sensitivity analysis toolbox. Environmental Modelling and Software, 2020, 124, 104579.	4.5	15
143	Catchment similarity concepts for understanding dynamic biogeochemical behaviour of river basins. Hydrological Processes, 2014, 28, 1554-1560.	2.6	14
144	On the evaluation of climate change impact models. Wiley Interdisciplinary Reviews: Climate Change, 2022, 13, .	8.1	14

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145	Towards a computationally efficient free-surface groundwater flow boundary condition for large-scale hydrological modelling. Advances in Water Resources, 2019, 123, 225-233.	3.8	13
146	Assessing Streamflow Sensitivity to Precipitation Variability in Karstâ€Influenced Catchments With Unclosed Water Balances. Water Resources Research, 2021, 57, e2020WR028598.	4.2	13
147	Correlation and causation in treeâ€ringâ€based reconstruction of paleohydrology in cold semiarid regions. Water Resources Research, 2016, 52, 7053-7069.	4.2	10
148	Drivers of interannual and intraâ€annual variability of dissolved organic carbon concentration in the River Thames between 1884 and 2013. Hydrological Processes, 2019, 33, 994-1012.	2.6	10
149	Simultaneous calibration of hydrological models in geographical space. Hydrology and Earth System Sciences, 2016, 20, 2913-2928.	4.9	9
150	Incorporating Uncertainty Into Multiscale Parameter Regionalization to Evaluate the Performance of Nationally Consistent Parameter Fields for a Hydrological Model. Water Resources Research, 2021, 57, e2020WR028393.	4.2	9
151	Including informal housing in slope stability analysis â€“ an application to a data-scarce location in the humid tropics. Natural Hazards and Earth System Sciences, 2020, 20, 3161-3177.	3.6	9
152	Effects of flood hazard visualization format on house purchasing decisions. Urban Water Journal, 2018, 15, 671-681.	2.1	8
153	Use of Reservoir Operation Optimization Methods in Practice: Insights from a Survey of Water Resource Managers. Journal of Water Resources Planning and Management - ASCE, 2020, 146, .	2.6	8
154	Uncertainty in the extreme flood magnitude estimates of large-scale flood hazard models. Environmental Research Letters, 2021, 16, 064013.	5.2	8
155	Towards more realistic runoff projections by removing limits on simulated soil moisture deficit. Journal of Hydrology, 2021, 600, 126505.	5.4	8
156	Predicting flow in ungauged catchments using correlated information sources. , 0, , .		8
157	A hydroarchive for the free exchange of hydrological software Website:. Hydrological Processes, 2004, 18, 389-391.	2.6	7
158	Improving parameter priors for data-scarce estimation problems. Water Resources Research, 2013, 49, 6090-6095.	4.2	7
159	The critical need to foster computational reproducibility. Environmental Research Letters, 2022, 17, 041005.	5.2	6
160	Understanding process controls on groundwater recharge variability across Africa through recharge landscapes. Journal of Hydrology, 2022, 612, 127967.	5.4	6
161	A multi-criteria penalty function approach for evaluating a priori model parameter estimates. Journal of Hydrology, 2015, 525, 165-177.	5.4	5
162	Chapter Nine Formal Scenario Development for Environmental Impact Assessment Studies. Developments in Integrated Environmental Assessment, 2008, 3, 145-162.	0.0	4

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163	Technical Reportâ€"Methods: A Diagnostic Approach to Analyze the Direction of Change in Model Outputs Based on Global Variations in the Model Inputs. Water Resources Research, 2020, 56, e2020WR027153.	4.2	4
164	Discovering environmental management opportunities for infectious disease control. Scientific Reports, 2021, 11, 6442.	3.3	4
165	Hydrological Catchment Classification Using a Data-Based Mechanistic Strategy. , 2012, , 483-500.		4
166	Estimating the regional climate responses over river basins to changes in tropical sea surface temperature patterns. Climate Dynamics, 2015, 45, 1965-1982.	3.8	3
167	An Introduction to the SAFE Matlab Toolbox With Practical Examples and Guidelines. , 2017, , 363-378.		3
168	Hydroinformatics education â€" the Water Informatics in Science and Engineering (WISE) Centre for Doctoral Training. Hydrology and Earth System Sciences, 2021, 25, 2721-2738.	4.9	3
169	Calibration, uncertainty, and regional analysis of conceptual rainfall-runoff models. , 2007, , 99-112.		2
170	Sensitivity Analysis of Environmental Models: A Systematic Review with Practical Workflow. , 2014, , .		2
171	Reply to comment by Melsen et al. on â€œMost computational hydrology is not reproducible, so is it really science?â€• Water Resources Research, 2017, 53, 2570-2571.	4.2	2
172	A Multimethod Global Sensitivity Analysis Approach to Support the Calibration and Evaluation of Land Surface Models. , 2017, , 125-144.		2
173	Comparison of Parameter Sensitivity Analysis Methods for Lumped Watershed Model. , 2008, , .		1
174	PUB in practice: case studies. , 0, , 270-360.		1
175	Reply to comment by AÃ±el on â€œMost computational hydrology is not reproducible, so is it really science?â€• Water Resources Research, 2017, 53, 2575-2576.	4.2	1
176	Reducing Uncertainty of Continuous Streamflow Predictions in Ungauged Basins (PUB) Using Regional Constraints: Using Regional Constraints for PUB. , 2009, , .		0
177	Reply to J. Vrugt's comment on "How effective and efficient are multiobjective evolutionary algorithms at hydrologic model calibration?". Hydrology and Earth System Sciences, 2007, 11, 1437-1439.	4.9	0