Hoshin Gupta

List of Publications by Year
in descending order

230 papers	37,664 citations	7096 78 h-index	3182 186 g-index
240 all docs	240 docs citations	240 times ranked	18244 citing authors

#	Article	IF	Citations
1	Decomposition of the mean squared error and NSE performance criteria: Implications for improving hydrological modelling. Journal of Hydrology, 2009, 377, 80-91.	5.4	3,232
2	Effective and efficient global optimization for conceptual rainfall-runoff models. Water Resources Research, 1992, 28, 1015-1031.	4.2	2,584
3	Status of Automatic Calibration for Hydrologic Models: Comparison with Multilevel Expert Calibration. Journal of Hydrologic Engineering - ASCE, 1999, 4, 135-143.	1.9	1,573
4	Shuffled complex evolution approach for effective and efficient global minimization. Journal of Optimization Theory and Applications, 1993, 76, 501-521.	1.5	1,338
5	Artificial Neural Network Modeling of the Rainfall-Runoff Process. Water Resources Research, 1995, 31, 2517-2530.	4.2	1,198
6	Toward improved calibration of hydrologic models: Multiple and noncommensurable measures of information. Water Resources Research, 1998, 34, 751-763.	4.2	1,154
7	Evaluation of PERSIANN System Satelliteâ€“Based Estimates of Tropical Rainfall. Bulletin of the American Meteorological Society, 2000, 81, 2035-2046.	3.3	1,063
8	A Shuffled Complex Evolution Metropolis algorithm for optimization and uncertainty assessment of hydrologic model parameters. Water Resources Research, 2003, 39, .	4.2	914
9	Precipitation Estimation from Remotely Sensed Information Using Artificial Neural Networks. Journal of Applied Meteorology and Climatology, 1997, 36, 1176-1190.	1.7	833
10	A decade of Predictions in Ungauged Basins (PUB)â€”a review. Hydrological Sciences Journal, 2013, 58, 1198-1255.	2.6	821
11	Multi-objective global optimization for hydrologic models. Journal of Hydrology, 1998, 204, 83-97.	5.4	771
12	Dual stateâ€“parameter estimation of hydrological models using ensemble Kalman filter. Advances in Water Resources, 2005, 28, 135-147.	3.8	753
13	Uncertainty in hydrologic modeling: Toward an integrated data assimilation framework. Water Resources Research, 2007, 43, .	4.2	611
14	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
15	Uncertainty assessment of hydrologic model states and parameters: Sequential data assimilation using the particle filter. Water Resources Research, 2005, 41, .	4.2	556
16	Toward improved calibration of hydrologic models: Combining the strengths of manual and automatic methods. Water Resources Research, 2000, 36, 3663-3674.	4.2	537
17	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
18	Reconciling theory with observations: elements of a diagnostic approach to model evaluation. Hydrological Processes, 2008, 22, 3802-3813.	2.6	511

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19	The future of hydrology: An evolving science for a changing world. Water Resources Research, 2010, 46, .	4.2	487
20	Automatic calibration of conceptual rainfall-runoff models: sensitivity to calibration data. Journal of Hydrology, 1996, 181, 23-48.	5.4	486
21	Do Nash values have value?. Hydrological Processes, 2007, 21, 2075-2080.	2.6	486
22	Effective and efficient algorithm for multiobjective optimization of hydrologic models. Water Resources Research, 2003, 39, .	4.2	479
23	Improved treatment of uncertainty in hydrologic modeling: Combining the strengths of global optimization and data assimilation. Water Resources Research, 2005, 41, .	4.2	472
24	Framework for Understanding Structural Errors (FUSE): A modular framework to diagnose differences between hydrological models. Water Resources Research, 2008, 44, .	4.2	461
25	Towards reduced uncertainty in conceptual rainfall-runoff modelling: dynamic identifiability analysis. Hydrological Processes, 2003, 17, 455-476.	2.6	448
26	A framework for development and application of hydrological models. Hydrology and Earth System Sciences, 2001, 5, 13-26.	4.9	443
27	Calibration of rainfall-runoff models: Application of global optimization to the Sacramento Soil Moisture Accounting Model. Water Resources Research, 1993, 29, 1185-1194.	4.2	425
28	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
29	A processâ€based diagnostic approach to model evaluation: Application to the NWS distributed hydrologic model. Water Resources Research, 2008, 44, .	4.2	399
30	Integration of soil moisture remote sensing and hydrologic modeling using data assimilation. Water Resources Research, 1998, 34, 3405-3420.	4.2	396
31	Bayesian recursive parameter estimation for hydrologic models. Water Resources Research, 2001, 37, 2521-2535.	4.2	351
32	Equifinality of formal (DREAM) and informal (GLUE) Bayesian approaches in hydrologic modeling?. Stochastic Environmental Research and Risk Assessment, 2009, 23, 1011-1026.	4.0	337
33	Towards a comprehensive assessment of model structural adequacy. Water Resources Research, 2012, 48, .	4.2	317
34	Towards the characterization of streamflow simulation uncertainty through multimodel ensembles. Journal of Hydrology, 2004, 298, 222-241.	5.4	306
35	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
36	A formal framework for scenario development in support of environmental decision-making. Environmental Modelling and Software, 2009, 24, 798-808.	4.5	284

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37	Model identification for hydrological forecasting under uncertainty. Stochastic Environmental Research and Risk Assessment, 2005, 19, 378-387.	4.0	269
38	Evaluation of Maximum Likelihood Parameter estimation techniques for conceptual rainfallâ€runoff models: Influence of calibration data variability and length on model credibility. Water Resources Research, 1983, 19, 251-259.	4.2	248
39	Calibration of a semi-distributed hydrologic model for streamflow estimation along a river system. Journal of Hydrology, 2004, 298, 112-135.	5.4	234
40	What do we mean by sensitivity analysis? The need for comprehensive characterization of â€œglobalâ€• sensitivity in <scp>E</scp>arth and <scp>E</scp>nvironmental systems models. Water Resources Research, 2015, 51, 3070-3092.	4.2	230
41	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
42	Toward improved streamflow forecasts: value of semidistributed modeling. Water Resources Research, 2001, 37, 2749-2759.	4.2	211
43	The Future of Sensitivity Analysis: An essential discipline for systems modeling and policy support. Environmental Modelling and Software, 2021, 137, 104954.	4.5	209
44	Large-sample hydrology: a need to balance depth with breadth. Hydrology and Earth System Sciences, 2014, 18, 463-477.	4.9	208
45	Self-organizing linear output map (SOLO): An artificial neural network suitable for hydrologic modeling and analysis. Water Resources Research, 2002, 38, 38-1-38-17.	4.2	203
46	What Role Does Hydrological Science Play in the Age of Machine Learning?. Water Resources Research, 2021, 57, e2020WR028091.	4.2	196
47	Automatic calibration of conceptual rainfallâ€runoff models: The question of parameter observability and uniqueness. Water Resources Research, 1983, 19, 260-268.	4.2	188
48	Improved streamflow forecasting using self-organizing radial basis function artificial neural networks. Journal of Hydrology, 2004, 295, 246-262.	5.4	183
49	Climate and vegetation water use efficiency at catchment scales. Hydrological Processes, 2009, 23, 2409-2414.	2.6	176
50	Estimation of physical variables from multichannel remotely sensed imagery using a neural network: Application to rainfall estimation. Water Resources Research, 1999, 35, 1605-1618.	4.2	166
51	Diurnal Variability of Tropical Rainfall Retrieved from Combined GOES and TRMM Satellite Information. Journal of Climate, 2002, 15, 983-1001.	3.2	157
52	Real-Time Data Assimilation for Operational Ensemble Streamflow Forecasting. Journal of Hydrometeorology, 2006, 7, 548-565.	1.9	146
53	Trends in water balance components across the Brazilian Cerrado. Water Resources Research, 2014, 50, 7100-7114.	4.2	140
54	Multihazard Scenarios for Analysis of Compound Extreme Events. Geophysical Research Letters, 2018, 45, 5470-5480.	4.0	139

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55	Spatial patterns in thunderstorm rainfall events and their coupling with watershed hydrological response. Advances in Water Resources, 2006, 29, 843-860.	3.8	137
56	Toward improved identifiability of hydrologic model parameters: The information content of experimental data. Water Resources Research, 2002, 38, 48-1-48-13.	4.2	135
57	A Multistep Automatic Calibration Scheme for River Forecasting Models. Journal of Hydrometeorology, 2000, 1, 524-542.	1.9	134
58	On typical range, sensitivity, and normalization of Mean Squared Error and Nashâ€Sutcliffe Efficiency type metrics. Water Resources Research, 2011, 47, .	4.2	134
59	A new framework for comprehensive, robust, and efficient global sensitivity analysis: 1. Theory. Water Resources Research, 2016, 52, 423-439.	4.2	132
60	Understanding uncertainty in distributed flash flood forecasting for semiarid regions. Water Resources Research, 2008, 44, .	4.2	131
61	On the simulation of infiltration- and saturation-excess runoff using radar-based rainfall estimates: Effects of algorithm uncertainty and pixel aggregation. Water Resources Research, 1998, 34, 2655-2670.	4.2	126
62	Are we unnecessarily constraining the agility of complex process-based models?. Water Resources Research, 2015, 51, 716-728.	4.2	123
63	Toward improved identification of hydrological models: A diagnostic evaluation of the â€œ<i>abcd</i>â€• monthly water balance model for the conterminous United States. Water Resources Research, 2010, 46, .	4.2	120
64	Evaluation and Transferability of the Noah Land Surface Model in Semiarid Environments. Journal of Hydrometeorology, 2005, 6, 68-84.	1.9	119
65	Uniqueness and observability of conceptual rainfallâ€runoff model parameters: The percolation process examined. Water Resources Research, 1983, 19, 269-276.	4.2	117
66	The relationship between data and the precision of parameter estimates of hydrologic models. Journal of Hydrology, 1985, 81, 57-77.	5.4	116
67	On the choice of calibration metrics for â€œhigh-flowâ€• estimation using hydrologic models. Hydrology and Earth System Sciences, 2019, 23, 2601-2614.	4.9	110
68	A blue/green waterâ€based accounting framework for assessment of water security. Water Resources Research, 2014, 50, 7187-7205.	4.2	100
69	A chaotic approach to rainfall disaggregation. Water Resources Research, 2001, 37, 61-72.	4.2	98
70	A philosophical basis for hydrological uncertainty. Hydrological Sciences Journal, 2016, 61, 1666-1678.	2.6	98
71	Results of the DMIP 2 Oklahoma experiments. Journal of Hydrology, 2012, 418-419, 17-48.	5.4	97
72	The Automatic Calibration of Conceptual Catchment Models Using Derivativeâ€Based Optimization Algorithms. Water Resources Research, 1985, 21, 473-485.	4.2	95

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73	Application of stochastic parameter optimization to the Sacramento Soil Moisture Accounting model. Journal of Hydrology, 2006, 325, 288-307.	5.4	95
74	A new framework for comprehensive, robust, and efficient global sensitivity analysis: 2. Application. Water Resources Research, 2016, 52, 440-455.	4.2	94
75	Debatesâ€"the future of hydrological sciences: A (common) path forward? Using models and data to learn: A systems theoretic perspective on the future of hydrological science. Water Resources Research, 2014, 50, 5351-5359.	4.2	91
76	Multiple-criteria calibration of a distributed watershed model using spatial regularization and response signatures. Journal of Hydrology, 2012, 418-419, 49-60.	5.4	88
77	Estimating epistemic and aleatory uncertainties during hydrologic modeling: An information theoretic approach. Water Resources Research, 2013, 49, 2253-2273.	4.2	87
78	Assimilating remote sensing observations of leaf area index and soil moisture for wheat yield estimates: An observing system simulation experiment. Water Resources Research, 2012, 48, .	4.2	86
79	A fully multipleâ€criteria implementation of the Sobolâ€² method for parameter sensitivity analysis. Journal of Geophysical Research, 2012, 117, .	3.3	85
80	The quantity and quality of information in hydrologic models. Water Resources Research, 2015, 51, 524-538.	4.2	85
81	A spatial regularization approach to parameter estimation for a distributed watershed model. Water Resources Research, 2008, 44, .	4.2	84
82	Advancing catchment hydrology to deal with predictions under change. Hydrology and Earth System Sciences, 2014, 18, 649-671.	4.9	83
83	On the development of regionalization relationships for lumped watershed models: The impact of ignoring sub-basin scale variability. Journal of Hydrology, 2009, 373, 337-351.	5.4	82
84	Diagnostic evaluation of conceptual rainfallâ€"runoff models using temporal clustering. Hydrological Processes, 2010, 24, 2840-2850.	2.6	81
85	On Lack of Robustness in Hydrological Model Development Due to Absence of Guidelines for Selecting Calibration and Evaluation Data: Demonstration for Dataâ€Driven Models. Water Resources Research, 2018, 54, 1013-1030.	4.2	71
86	Estimating the uncertain mathematical structure of a water balance model via Bayesian data assimilation. Water Resources Research, 2009, 45, .	4.2	69
87	Systematic Bias in Land Surface Models. Journal of Hydrometeorology, 2007, 8, 989-1001.	1.9	68
88	Parameter sensitivity analysis for different complexity land surface models using multicriteria methods. Journal of Geophysical Research, 2006, 111, .	3.3	65
89	Advances in automatic calibration of watershed models. Water Science and Application, 2003, , 9-28.	0.3	64
90	Climate Change: The Need to Consider Human Forcings Besides Greenhouse Gases. Eos, 2009, 90, 413-413.	0.1	64

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91	Multicriteria design of rain gauge networks for flash flood prediction in semiarid catchments with complex terrain. Water Resources Research, 2010, 46, .	4.2	64
92	Calibrating a Land Surface Model of Varying Complexity Using Multicriteria Methods and the Cabauw Dataset. Journal of Hydrometeorology, 2002, 3, 181-194.	1.9	62
93	On the use of spatial regularization strategies to improve calibration of distributed watershed models. Water Resources Research, 2010, 46, .	4.2	62
94	VARS-TOOL: A toolbox for comprehensive, efficient, and robust sensitivity and uncertainty analysis. Environmental Modelling and Software, 2019, 112, 95-107.	4.5	62
95	The Analysis of Structural Identifiability: Theory and Application to Conceptual Rainfallâ€Runoff Models. Water Resources Research, 1985, 21, 487-495.	4.2	61
96	Using a multiobjective approach to retrieve information on surface properties used in a SVAT model. Journal of Hydrology, 2004, 287, 214-236.	5.4	61
97	Revisiting the Basis of Sensitivity Analysis for Dynamical Earth System Models. Water Resources Research, 2018, 54, 8692-8717.	4.2	58
98	Estimating information entropy for hydrological data: Oneâ€dimensional case. Water Resources Research, 2014, 50, 5003-5018.	4.2	57
99	Preface paper to the Semi-Arid Land-Surface-Atmosphere (SALSA) Program special issue. Agricultural and Forest Meteorology, 2000, 105, 3-20.	4.8	55
100	Deep learning rainfallâ€“runoff predictions of extreme events. Hydrology and Earth System Sciences, 2022, 26, 3377-3392.	4.9	55
101	Correcting the mathematical structure of a hydrological model via Bayesian data assimilation. Water Resources Research, 2011, 47, .	4.2	54
102	A Hydrometeorological Perspective on the Karakoram Anomaly Using Unique Valleyâ€Based Synoptic Weather Observations. Geophysical Research Letters, 2017, 44, 10,470.	4.0	54
103	Evaluating model performance and parameter behavior for varying levels of land surface model complexity. Water Resources Research, 2006, 42, .	4.2	53
104	Global sensitivity analysis for high-dimensional problems: How to objectively group factors and measure robustness and convergence while reducing computational cost. Environmental Modelling and Software, 2019, 111, 282-299.	4.5	53
105	Toward a model space and model independence metric. Geophysical Research Letters, 2008, 35, .	4.0	52
106	Exploring parameter sensitivities of the land surface using a locally coupled land-atmosphere model. Journal of Geophysical Research, 2004, 109, n/a-n/a.	3.3	49
107	Constraining Land Surface and Atmospheric Parameters of a Locally Coupled Model Using Observational Data. Journal of Hydrometeorology, 2005, 6, 156-172.	1.9	49
108	A â€˜User-Friendlyâ€™ approach to parameter estimation in hydrologic models. Journal of Hydrology, 2006, 320, 202-217.	5.4	49

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109	Hydrologic consistency as a basis for assessing complexity of monthly water balance models for the continental United States. Water Resources Research, 2011, 47, .	4.2	49
110	Application of temporal streamflow descriptors in hydrologic model parameter estimation. Water Resources Research, 2005, 41, .	4.2	48
111	Improving robustness of hydrologic parameter estimation by the use of moving block bootstrap resampling. Water Resources Research, 2010, 46, .	4.2	47
112	Comparing expert judgement and numerical criteria for hydrograph evaluation. Hydrological Sciences Journal, 2015, 60, 402-423.	2.6	46
113	Impact of Irrigation over the California Central Valley on Regional Climate. Journal of Hydrometeorology, 2017, 18, 1341-1357.	1.9	46
114	Efficient estimation of flood forecast prediction intervals via singleâ€and multiâ€objective versions of the LUBE method. Hydrological Processes, 2016, 30, 2703-2716.	2.6	45
115	The role of hydrograph indices in parameter estimation of rainfall-runoff models. Hydrological Processes, 2005, 19, 2187-2207.	2.6	44
116	Enhancing the Structure of the WRF-Hydro Hydrologic Model for Semiarid Environments. Journal of Hydrometeorology, 2019, 20, 691-714.	1.9	44
117	Constraining a physically based Soil-Vegetation-Atmosphere Transfer model with surface water content and thermal infrared brightness temperature measurements using a multiobjective approach. Water Resources Research, 2005, 41, .	4.2	43
118	Towards a comprehensive approach to parameter estimation in land surface parameterization schemes. Hydrological Processes, 2013, 27, 2075-2097.	2.6	43
119	On characterizing the temporal dominance patterns of model parameters and processes. Hydrological Processes, 2016, 30, 2255-2270.	2.6	43
120	On the dynamic nature of hydrological similarity. Hydrology and Earth System Sciences, 2018, 22, 3663-3684.	4.9	42
121	On the ability to infer spatial catchment variability using streamflow hydrographs. Water Resources Research, 2011, 47, .	4.2	41
122	Impact of the Three Gorges Dam on the Hydrology and Ecology of the Yangtze River. Water (Switzerland), 2016, 8, 590.	2.7	41
123	Exploring the relationship between complexity and performance in a land surface model using the multicriteria method. Journal of Geophysical Research, 2002, 107, ACL 11-1.	3.3	40
124	Updating realâ€time flood forecasts via the dynamic system response curve method. Water Resources Research, 2015, 51, 5128-5144.	4.2	40
125	Diagnostic calibration of a hydrological model in a mountain area by hydrograph partitioning. Hydrology and Earth System Sciences, 2015, 19, 1807-1826.	4.9	40
126	Impacts of rainfall spatial variability on hydrogeological response. Water Resources Research, 2015, 51, 1300-1314.	4.2	40

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127	Robust informational entropy-based descriptors of flow in catchment hydrology. Hydrological Sciences Journal, 2016, 61, 1-18.	2.6	38
128	Use of an entropyâ€based metric in multiobjective calibration to improve model performance. Water Resources Research, 2014, 50, 8066-8083.	4.2	37
129	Using satellite-based evapotranspiration estimates to improve the structure of a simple conceptual rainfallâ€“runoff model. Hydrology and Earth System Sciences, 2017, 21, 879-896.	4.9	37
130	Toward Improved Identifiability of Soil Hydraulic Parameters: On the Selection of a Suitable Parametric Model. Vadose Zone Journal, 2003, 2, 98-113.	2.2	36
131	How Bayesian data assimilation can be used to estimate the mathematical structure of a model. Stochastic Environmental Research and Risk Assessment, 2010, 24, 925-937.	4.0	36
132	Bayesian recursive estimation of parameter and output uncertainty for watershed models. Water Science and Application, 2003, , 113-124.	0.3	34
133	Does Information Theory Provide a New Paradigm for Earth Science? Hypothesis Testing. Water Resources Research, 2020, 56, e2019WR024918.	4.2	33
134	Impact of field-calibrated vegetation parameters on GCM climate simulations. Quarterly Journal of the Royal Meteorological Society, 2001, 127, 1199-1223.	2.7	32
135	Reply to comment by K. Beven and P. Young on â€œBayesian recursive parameter estimation for hydrologic modelsâ€. Water Resources Research, 2003, 39, .	4.2	32
136	A platform for probabilistic Multimodel and Multiproduct Streamflow Forecasting. Water Resources Research, 2017, 53, 376-399.	4.2	32
137	Neural Error Regression Diagnosis (NERD): A Tool for Model Bias Identification and Prognostic Data Assimilation. Journal of Hydrometeorology, 2006, 7, 160-177.	1.9	31
138	Assessing the performance and robustness of two conceptual rainfall-runoff models on a worldwide sample of watersheds. Journal of Hydrology, 2020, 585, 124698.	5.4	31
139	Mapping model behaviour using Self-Organizing Maps. Hydrology and Earth System Sciences, 2009, 13, 395-409.	4.9	30
140	A topographic index explaining hydrological similarity by accounting for the joint controls of runoff formation. Hydrology and Earth System Sciences, 2019, 23, 3807-3821.	4.9	29
141	On the Robustness of Conceptual Rainfallâ€Runoff Models to Calibration and Evaluation Data Set Splits Selection: A Large Sample Investigation. Water Resources Research, 2020, 56, e2019WR026752.	4.2	29
142	Identification and evaluation of watershed models. Water Science and Application, 2003, , 29-47.	0.3	28
143	Scenario development for water resources planning and watershed management: Methodology and semi-arid region case study. Environmental Modelling and Software, 2011, 26, 873-885.	4.5	28
144	Multiple criteria global optimization for watershed model calibration. Water Science and Application, 2003, , 125-132.	0.3	27

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145	Sensitivity analysis using mass flux and concentration. Hydrological Processes, 1999, 13, 2233-2244.	2.6	26
146	A constraint-based search algorithm for parameter identification of environmental models. Hydrology and Earth System Sciences, 2014, 18, 4861-4870.	4.9	26
147	Urban Effects on Regional Climate: A Case Study in the Phoenix and Tucson â€œSun Corridorâ€. Earth Interactions, 2016, 20, 1-25.	1.5	26
148	Demasking the integrated information of discharge: Advancing sensitivity analysis to consider different hydrological components and their rates of change. Water Resources Research, 2016, 52, 8724-8743.	4.2	26
149	A multi-method Generalized Global Sensitivity Matrix approach to accounting for the dynamical nature of earth and environmental systems models. Environmental Modelling and Software, 2019, 114, 1-11.	4.5	26
150	A universal multifractal approach to assessment of spatiotemporal extreme precipitation over the Loess Plateau of China. Hydrology and Earth System Sciences, 2020, 24, 809-826.	4.9	25
151	Climatic forcing for recent significant terrestrial drying and wetting. Advances in Water Resources, 2019, 133, 103425.	3.8	24
152	Multiobjective calibration and sensitivity of a distributed land surface water and energy balance model. Journal of Geophysical Research, 2001, 106, 33421-33433.	3.3	23
153	Information loss in approximately Bayesian estimation techniques: A comparison of generative and discriminative approaches to estimating agricultural productivity. Journal of Hydrology, 2013, 507, 163-173.	5.4	23
154	Assessing water security in the SÃ£o Paulo metropolitan region under projected climate change. Hydrology and Earth System Sciences, 2019, 23, 4955-4968.	4.9	23
155	Identification of climate variables dominating streamflow generation and quantification of streamflow decline in the Loess Plateau, China. Science of the Total Environment, 2020, 722, 137935.	8.0	23
156	A Markov Chain Flow Model for flood forecasting. Water Resources Research, 1993, 29, 2427-2436.	4.2	22
157	Understanding the Information Content in the Hierarchy of Model Development Decisions: Learning From Data. Water Resources Research, 2021, 57, e2020WR027948.	4.2	22
158	Modeling the distributed effects of forest thinning on the long-term water balance and streamflow extremes for a semi-arid basin in the southwestern US. Hydrology and Earth System Sciences, 2016, 20, 1241-1267.	4.9	21
159	Ensembles vs. information theory: supporting science under uncertainty. Frontiers of Earth Science, 2018, 12, 653-660.	2.1	21
160	Parameter Sensitivity Analysis for Computationally Intensive Spatially Distributed Dynamical Environmental Systems Models. Journal of Advances in Modeling Earth Systems, 2019, 11, 2896-2909.	3.8	21
161	Formulating an Elasticity Approach to Quantify the Effects of Climate Variability and Ecological Restoration on Sediment Discharge Change in the Loess Plateau, China. Water Resources Research, 2019, 55, 9604-9622.	4.2	21
162	On Simulation and Analysis of Variableâ€Rate Pumping Tests. Ground Water, 2013, 51, 469-473.	1.3	19

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163	The challenge of predicting flash floods from thunderstorm rainfall. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2002, 360, 1363-1371.	3.4	18
164	Impacts of a Parameterization Deficiency on Offline and Coupled Land Surface Model Simulations. Journal of Hydrometeorology, 2003, 4, 901-914.	1.9	18
165	The soil water characteristic as new class of closed-form parametric expressions for the flow duration curve. Journal of Hydrology, 2016, 535, 438-456.	5.4	18
166	Improved Dynamic System Response Curve Method for Realâ€Time Flood Forecast Updating. Water Resources Research, 2019, 55, 7493-7519.	4.2	18
167	Why Is the Terrestrial Water Storage in Dryland Regions Declining? A Perspective Based on Gravity Recovery and Climate Experiment Satellite Observations and Noah Land Surface Model With Multiparameterization Schemes Model Simulations. Water Resources Research, 2020, 56, e2020WR027102.	4.2	18
168	A shuffled complex evolution metropolis algorithm for estimating posterior distribution of watershed model parameters. Water Science and Application, 2003, , 105-112.	0.3	17
169	Multicriteria calibration of hydrologic models. Water Science and Application, 2003, , 185-196.	0.3	17
170	Response to comment by Keith Beven on â€œEquifinality of formal (DREAM) and informal (GLUE) Bayesian approaches in hydrologic modeling?â€• Stochastic Environmental Research and Risk Assessment, 2009, 23, 1061-1062.	4.0	16
171	An approach to quantifying the efficiency of a Bayesian filter. Water Resources Research, 2013, 49, 2164-2173.	4.2	16
172	An Information Theory Approach to Identifying a Representative Subset of Hydroâ€Climatic Simulations for Impact Modeling Studies. Water Resources Research, 2018, 54, 5422-5435.	4.2	16
173	A Cloud-Patch Technique for Identification and Removal of No-Rain Clouds from Satellite Infrared Imagery. Journal of Applied Meteorology and Climatology, 1999, 38, 1170-1181.	1.7	15
174	Assessing hydrological impacts of short-term climate change in the Mara River basin of East Africa. Journal of Hydrology, 2018, 566, 818-829.	5.4	15
175	The timing and magnitude of changes to Hortonian overland flow at the watershed scale during the postâ€fire recovery process. Hydrological Processes, 2021, 35, e14208.	2.6	15
176	NowCasting-Nets: Representation Learning to Mitigate Latency Gap of Satellite Precipitation Products Using Convolutional and Recurrent Neural Networks. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-21.	6.3	15
177	Assessing uncertainties in surface water security: An empirical multimodel approach. Water Resources Research, 2015, 51, 9013-9028.	4.2	14
178	Contrasting American and Brazilian Systems for Water Allocation and Transfers. Journal of Water Resources Planning and Management - ASCE, 2015, 141, .	2.6	14
179	Advancing Precipitation Estimation, Prediction, and Impact Studies. Bulletin of the American Meteorological Society, 2020, 101, E1584-E1592.	3.3	14
180	Soil-moisture nudging experiments with a single-column version of the ECMWF model. Quarterly Journal of the Royal Meteorological Society, 1999, 125, 1879-1902.	2.7	13

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181	Perspectives in using a remotely sensed dryness index in distributed hydrological models at the river-basin scale. Hydrological Processes, 2002, 16, 2973-2987.	2.6	13
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