Murugesu Sivapalan

List of Publications by Year
in descending order

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275 papers	26,695 citations	5401 80 h-index	7206 147 g-index
357 all docs	357 docs citations	357 times ranked	13009 citing authors

#	Article	IF	Citations
1	Scale issues in hydrological modelling: A review. Hydrological Processes, 1995, 9, 251-290.	2.6	1,391
2	IAHS Decade on Predictions in Ungauged Basins (PUB), 2003â€“2012: Shaping an exciting future for the hydrological sciences. Hydrological Sciences Journal, 2003, 48, 857-880.	2.7	1,014
3	A decade of Predictions in Ungauged Basins (PUB)â€”a review. Hydrological Sciences Journal, 2013, 58, 1198-1255.	2.7	866
4	Socioâ€hydrology: A new science of people and water. Hydrological Processes, 2012, 26, 1270-1276.	2.6	864
5	Hyperresolution global land surface modeling: Meeting a grand challenge for monitoring Earth's terrestrial water. Water Resources Research, 2011, 47, .	4.2	660
6	Moving beyond heterogeneity and process complexity: A new vision for watershed hydrology. Water Resources Research, 2007, 43, .	4.2	630
7	Catchment Classification and Hydrologic Similarity. Geography Compass, 2007, 1, 901-931.	2.8	609
8	â€œPanta Rheiâ€”Everything Flowsâ€• Change in hydrology and societyâ€”The IAHS Scientific Decade 2013â€“2022. Hydrological Sciences Journal, 2013, 58, 1256-1275.	2.7	593
9	Effects of spatial variability and scale with implications to hydrologic modeling. Journal of Hydrology, 1988, 102, 29-47.	5.6	562
10	Twenty-three unsolved problems in hydrology (UPH) â€“ a community perspective. Hydrological Sciences Journal, 2019, 64, 1141-1158.	2.7	556
11	The future of hydrology: An evolving science for a changing world. Water Resources Research, 2010, 46, .	4.2	507
12	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	420
13	Prediction in ungauged basins: a grand challenge for theoretical hydrology. Hydrological Processes, 2003, 17, 3163-3170.	2.6	397
14	On hydrologic similarity: 2. A scaled model of storm runoff production. Water Resources Research, 1987, 23, 2266-2278.	4.2	380
15	Nutrient loads exported from managed catchments reveal emergent biogeochemical stationarity. Geophysical Research Letters, 2010, 37, .	4.0	350
16	Dominant flood generating mechanisms across the United States. Geophysical Research Letters, 2016, 43, 4382-4390.	4.0	336
17	Downward approach to hydrological prediction. Hydrological Processes, 2003, 17, 2101-2111.	2.6	303
18	Socioâ€hydrology: Useâ€inspired water sustainability science for the Anthropocene. Earth's Future, 2014, 2, 225-230.	6.3	277

#	Article	IF	Citations
19	Process complexity at hillslope scale, process simplicity at the watershed scale: is there a connection?. Hydrological Processes, 2003, 17, 1037-1041.	2.6	268
20	Sociohydrology: Scientific Challenges in Addressing the Sustainable Development Goals. Water Resources Research, 2019, 55, 6327-6355.	4.2	263
21	Similarity and scale in catchment storm response. Reviews of Geophysics, 1990, 28, 1-18.	23.5	257
22	Watershed groundwater balance estimation using streamflow recession analysis and baseflow separation. Journal of Hydrology, 1999, 219, 20-33.	5.6	232
23	Process controls of water balance variability in a large semi-arid catchment: downward approach to hydrological model development. Journal of Hydrology, 2001, 254, 174-198.	5.6	227
24	Time scale interactions and the coevolution of humans and water. Water Resources Research, 2015, 51, 6988-7022.	4.2	225
25	Performance of conceptual rainfall-runoff models in low-yielding ephemeral catchments. Water Resources Research, 1997, 33, 153-166.	4.2	221
26	Climate, soil, and vegetation controls upon the variability of water balance in temperate and semiarid landscapes: Downward approach to water balance analysis. Water Resources Research, 2003, 39, .	4.2	221
27	Pattern, Process and Function: Elements of a Unified Theory of Hydrology at the Catchment Scale. , 2005, , .		212
28	Transformation of point rainfall to areal rainfall: Intensity-duration-frequency curves. Journal of Hydrology, 1998, 204, 150-167.	5.6	208
29	On the relative roles of hillslope processes, channel routing, and network geomorphology in the hydrologic response of natural catchments. Water Resources Research, 1995, 31, 3089-3101.	4.2	204
30	Comparative assessment of predictions in ungauged basins â€“ Part 1: Runoff-hydrograph studies. Hydrology and Earth System Sciences, 2013, 17, 1783-1795.	4.9	191
31	Threshold behaviour in hydrological systems as (human) geo-ecosystems: manifestations, controls, implications. Hydrology and Earth System Sciences, 2009, 13, 1273-1297.	4.9	185
32	Humanâ€“water interface in hydrological modelling: current status and future directions. Hydrology and Earth System Sciences, 2017, 21, 4169-4193.	4.9	185
33	Assessing the impact of land use change on hydrology by ensemble modeling (LUCHEM). I: Model intercomparison with current land use. Advances in Water Resources, 2009, 32, 129-146.	3.8	184
34	Patterns of similarity of seasonal water balances: A window into streamflow variability over a range of time scales. Water Resources Research, 2014, 50, 5638-5661.	4.2	180
35	Climate and vegetation water use efficiency at catchment scales. Hydrological Processes, 2009, 23, 2409-2414.	2.6	177
36	A prototype framework for models of socio-hydrology: identification of key feedback loops and parameterisation approach. Hydrology and Earth System Sciences, 2014, 18, 2141-2166.	4.9	176

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37	Linking flood frequency to long-term water balance: Incorporating effects of seasonality. Water Resources Research, 2005, 41, .	4.2	168
38	Climate and landscape controls on water balance model complexity over changing timescales. Water Resources Research, 2002, 38, 50-1-50-17.	4.2	161
39	Understanding the Role of Climate Characteristics in Drought Propagation. Water Resources Research, 2017, 53, 9304-9329.	4.2	154
40	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	149
41	On hydrological heterogeneity â€" Catchment morphology and catchment response. Journal of Hydrology, 1988, 100, 353-375.	5.6	147
42	Spatial scale dependence of ecohydrologically mediated water balance partitioning: A synthesis framework for catchment ecohydrology. Water Resources Research, 2011, 47, .	4.2	144
43	Socio-hydrologic modeling to understand and mediate the competition for water between agriculture development and environmental health: Murrumbidgee River basin, Australia. Hydrology and Earth System Sciences, 2014, 18, 4239-4259.	4.9	143
44	Hydrological connectivity of upland-riparian zones in agricultural catchments: Implications for runoff generation and nitrate transport. Journal of Hydrology, 2006, 331, 643-658.	5.6	137
45	Nitrate attenuation in agricultural catchments: Shifting balances between transport and reaction. Water Resources Research, 2006, 42, .	4.2	133
46	Assessing the impact of land use change on hydrology by ensemble modelling (LUCHEM) II: Ensemble combinations and predictions. Advances in Water Resources, 2009, 32, 147-158.	3.8	131
47	An optimalityâ€based model of the dynamic feedbacks between natural vegetation and the water balance. Water Resources Research, 2009, 45, .	4.2	130
48	A dynamic framework for water security. Water Security, 2017, 1, 12-20.	2.5	129
49	An optimality-based model of the coupled soil moisture and root dynamics. Hydrology and Earth System Sciences, 2008, 12, 913-932.	4.9	127
50	Modeling of rainfall time series and extremes using bounded random cascades and levy-stable distributions. Water Resources Research, 2000, 36, 3293-3300.	4.2	126
51	Progress in socioâ€hydrology: a metaâ€analysis of challenges and opportunities. Wiley Interdisciplinary Reviews: Water, 2017, 4, e1193.	7.0	126
52	Functional model of water balance variability at the catchment scale: 1. Evidence of hydrologic similarity and spaceâ€time symmetry. Water Resources Research, 2011, 47, .	4.2	125
53	Improving model structure and reducing parameter uncertainty in conceptual water balance models through the use of auxiliary data. Water Resources Research, 2007, 43, .	4.2	124
54	Developing predictive insight into changing water systems: use-inspired hydrologic science for the Anthropocene. Hydrology and Earth System Sciences, 2013, 17, 5013-5039.	4.9	122

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55	Investigating the roles of climate seasonality and landscape characteristics on mean annual and monthly water balances. Journal of Hydrology, 2008, 357, 255-269.	5.6	120
56	Debatesâ€"Perspectives on socioâ€hydrology: Changing water systems and the â€œtyranny of small problemsâ€â€"Socioâ€hydrology. Water Resources Research, 2015, 51, 4795-4805.	4.2	119
57	Socio-hydrologic drivers of the pendulum swing between agricultural development and environmental health: a case study from Murrumbidgee River basin, Australia. Hydrology and Earth System Sciences, 2014, 18, 1027-1041.	4.9	118
58	Temporal scales and hydrological regimes: Implications for flood frequency scaling. Water Resources Research, 1997, 33, 2981-2999.	4.2	117
59	Conservation equations governing hillslope responses: Exploring the physical basis of water balance. Water Resources Research, 2000, 36, 1845-1863.	4.2	117
60	A unifying framework for watershed thermodynamics: constitutive relationships. Advances in Water Resources, 1999, 23, 15-39.	3.8	116
61	A synthesis of space-time variability in storm response: Rainfall, runoff generation, and routing. Water Resources Research, 1999, 35, 2469-2485.	4.2	115
62	Towards reconstruction of the flow duration curve: development of a conceptual framework with a physical basis. Hydrology and Earth System Sciences, 2011, 15, 2805-2819.	4.9	112
63	Socio-hydrologic perspectives of the co-evolution of humans and water in the Tarim River basin, Western China: the Taijiâ€“Tire model. Hydrology and Earth System Sciences, 2014, 18, 1289-1303.	4.9	112
64	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	111
65	On geomorphological dispersion in natural catchments and the geomorphological unit hydrograph. Water Resources Research, 1994, 30, 2311-2323.	4.2	107
66	Exploring the physical controls of regional patterns of flow duration curves â€“ Part 3: A catchment classification system based on regime curve indicators. Hydrology and Earth System Sciences, 2012, 16, 4467-4482.	4.9	106
67	Exploring the physical controls of regional patterns of flow duration curves â€“ Part 1: Insights from statistical analyses. Hydrology and Earth System Sciences, 2012, 16, 4435-4446.	4.9	106
68	The Water Planetary Boundary: Interrogation and Revision. One Earth, 2020, 2, 223-234.	6.9	105
69	On the representative elementary area (REA) concept and its utility for distributed rainfall-runoff modelling. Hydrological Processes, 1995, 9, 313-330.	2.6	102
70	Comparative assessment of predictions in ungauged basins â€“ Part 2: Flood and low flow studies. Hydrology and Earth System Sciences, 2013, 17, 2637-2652.	4.9	101
71	Illuminating water cycle modifications and Earth system resilience in the Anthropocene. Water Resources Research, 2020, 56, e2019WR024957.	4.2	100
72	Power law catchmentâ€scale recessions arising from heterogeneous linear smallâ€scale dynamics. Water Resources Research, 2009, 45, .	4.2	98

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73	Comparative hydrology across AmeriFlux sites: The variable roles of climate, vegetation, and groundwater. Water Resources Research, 2011, 47, .	4.2	98
74	Results of the DMIP 2 Oklahoma experiments. Journal of Hydrology, 2012, 418-419, 17-48.	5.6	98
75	Comparative assessment of predictions in ungauged basins â€“ Part 3: Runoff signatures in Austria. Hydrology and Earth System Sciences, 2013, 17, 2263-2279.	4.9	97
76	On hydrologic similarity, 3. A dimensionless flood frequency model using a generalized GUH and partial area runoff generation. Water Resources Research, 1990, 26, 43-58.	4.2	94
77	An investigation into the physical causes of scaling and heterogeneity of regional flood frequency. Water Resources Research, 1997, 33, 1045-1059.	4.2	92
78	Investigating the representative elementary area concept: An approach based on field data. Hydrological Processes, 1995, 9, 291-312.	2.6	90
79	Linearity and nonlinearity of basin response as a function of scale: Discussion of alternative definitions. Water Resources Research, 2002, 38, 4-1-4-5.	4.2	90
80	A theoretical exploration of catchment-scale sediment delivery. Water Resources Research, 2005, 41, .	4.2	90
81	Exploring the physical controls of regional patterns of flow duration curves â€“ Part 4: A synthesis of empirical analysis, process modeling and catchment classification. Hydrology and Earth System Sciences, 2012, 16, 4483-4498.	4.9	89
82	Linking spaceâ€“time variability of river runoff and rainfall fields: a dynamic approach. Advances in Water Resources, 2001, 24, 1001-1014.	3.8	88
83	Assessing the impact of land use change on hydrology by ensemble modeling (LUCHEM) III: Scenario analysis. Advances in Water Resources, 2009, 32, 159-170.	3.8	87
84	Advancing catchment hydrology to deal with predictions under change. Hydrology and Earth System Sciences, 2014, 18, 649-671.	4.9	84
85	HESS Opinions: Hydrologic predictions in a changing environment: behavioral modeling. Hydrology and Earth System Sciences, 2011, 15, 635-646.	4.9	82
86	Spatial Heterogeneity and Scale in the Infiltration Response of Catchments. Water Science and Technology Library, 1986, , 81-106.	0.0	81
87	Spatiotemporal scaling of hydrological and agrochemical export dynamics in a tileâ€drained Midwestern watershed. Water Resources Research, 2011, 47, .	4.2	80
88	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	78
89	The secret to â€˜doing better hydrological scienceâ€™: change the question!. Hydrological Processes, 2009, 23, 1391-1396.	2.6	78
90	Energy balance of a natural jarrah (Eucalyptus marginata) forest in Western Australia: measurements during the spring and summer. Agricultural and Forest Meteorology, 2001, 109, 79-104.	4.8	77

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91	Exploring the physical controls of regional patterns of flow duration curves â€“ Part 2: Role of seasonality, the regime curve, and associated process controls. Hydrology and Earth System Sciences, 2012, 16, 4447-4465.	4.9	77
92	Characterizing hydrologic change through catchment classification. Hydrology and Earth System Sciences, 2014, 18, 273-285.	4.9	77
93	Quantifying the role of climate and landscape characteristics on hydrologic partitioning and vegetation response. Water Resources Research, 2011, 47, .	4.2	76
94	Groundwater dynamics under water-saving irrigation and implications for sustainable water management in an oasis: Tarim River basin of western China. Hydrology and Earth System Sciences, 2014, 18, 3951-3967.	4.9	76
95	Water and salt balance modelling to predict the effects of land-use changes in forested catchments. 1. Small catchment water balance model. Hydrological Processes, 1996, 10, 393-411.	2.6	74
96	A similarity framework to assess controls on shallow subsurface flow dynamics in hillslopes. Water Resources Research, 2009, 45, .	4.2	74
97	Soil moisture controls on patterns of grass green-up in Inner Mongolia: an index based approach. Hydrology and Earth System Sciences, 2013, 17, 805-815.	4.9	73
98	From engineering hydrology to Earth system science: milestones in the transformation of hydrologic science. Hydrology and Earth System Sciences, 2018, 22, 1665-1693.	4.9	72
99	A catchment scale water balance model for FIFE. Journal of Geophysical Research, 1992, 97, 18997-19007.	3.3	71
100	Modeling the spatial variability of subsurface runoff using a topographic index. Water Resources Research, 1997, 33, 1061-1073.	4.2	71
101	A conceptual model of sediment transport: application to the Avon River Basin in Western Australia. Hydrological Processes, 1999, 13, 727-743.	2.6	71
102	Regional patterns of interannual variability of catchment water balances across the continental U.S.: A Budyko framework. Water Resources Research, 2014, 50, 9177-9193.	4.2	69
103	A conceptual socio-hydrological model of the co-evolution of humans and water: case study of the Tarim River basin, western China. Hydrology and Earth System Sciences, 2015, 19, 1035-1054.	4.9	68
104	Extension of the Representative Elementary Watershed approach for cold regions via explicit treatment of energy related processes. Hydrology and Earth System Sciences, 2006, 10, 619-644.	4.9	67
105	Statistical downscaling of extreme daily precipitation, evaporation, and temperature and construction of future scenarios. Hydrological Processes, 2012, 26, 3510-3523.	2.6	67
106	A model of the socioâ€hydrologic dynamics in a semiarid catchment: Isolating feedbacks in the coupled humanâ€hydrology system. Water Resources Research, 2015, 51, 6442-6471.	4.2	65
107	A conceptual model of nutrient mobilisation and transport applicable at large catchment scales. Journal of Hydrology, 2000, 240, 23-44.	5.6	64
108	Adaptation of water resources systems to changing society and environment: a statement by the International Association of Hydrological Sciences. Hydrological Sciences Journal, 2016, 61, 2803-2817.	2.7	64

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109	Tests of a space-time model of daily rainfall in southwestern Australia based on nonhomogeneous random cascades. Water Resources Research, 2000, 36, 267-284.	4.2	62
110	Ecohydrological responses of dense canopies to environmental variability: 1. Interplay between vertical structure and photosynthetic pathway. Journal of Geophysical Research, 2010, 115, .	3.3	62
111	Functional model of water balance variability at the catchment scale: 2. Elasticity of fast and slow runoff components to precipitation change in the continental United States. Water Resources Research, 2011, 47, .	4.2	62
112	Linking Eco-Energetics and Eco-Hydrology to Select Sites for the Assisted Colonization of Australiaâ€™s Rarest Reptile. Biology, 2013, 2, 1-25.	2.9	62
113	A test of the optimality approach to modelling canopy properties and CO2uptake by natural vegetation. Plant, Cell and Environment, 2007, 30, 1586-1598.	6.0	60
114	Water resources sustainability in a globalizing world: who uses the water?. Hydrological Processes, 2016, 30, 3330-3336.	2.6	60
115	A multidimensional model of nonstationary spaceâ€time rainfall at the catchment scale. Water Resources Research, 1987, 23, 1289-1299.	4.2	59
116	Hydrological versus biogeochemical controls on catchment nitrate export: a test of the flushing mechanism. Hydrological Processes, 2006, 20, 4269-4286.	2.6	59
117	Assessing the impact of climate and land use changes on extreme floods in a large tropical catchment. Journal of Hydrology, 2013, 490, 88-105.	5.6	58
118	Dynamical process upscaling for deriving catchment scale state variables and constitutive relations for meso-scale process models. Hydrology and Earth System Sciences, 2006, 10, 981-996.	4.9	57
119	Comparative diagnostic analysis of runoff generation processes in Oklahoma DMIP2 basins: The Blue River and the Illinois River. Journal of Hydrology, 2012, 418-419, 90-109.	5.6	57
120	Expanding the Scope and Foundation of Sociohydrology as the Science of Coupled Humanâ€Water Systems. Water Resources Research, 2019, 55, 874-887.	4.2	56
121	Transcending limitations of stationarity and the return period: processâ€based approach to flood estimation and risk assessment. Hydrological Processes, 2009, 23, 1671-1675.	2.6	51
122	A canopy-scale test of the optimal water-use hypothesis. Plant, Cell and Environment, 2007, 31, 071030013314002-???.	6.0	50
123	Framework for exploration of climatic and landscape controls on catchment water balance, with emphasis on inter-annual variability. Journal of Hydrology, 2009, 371, 154-168.	5.6	50
124	Climate, soil, and vegetation controls on the temporal variability of vadose zone transport. Water Resources Research, 2011, 47, .	4.2	50
125	Prediction in a socio-hydrological world. Hydrological Sciences Journal, 0, , 1-8.	2.7	50
126	Tests of peak flow scaling in simulated self-similar river networks. Advances in Water Resources, 2001, 24, 991-999.	3.8	48

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127	Temporal dynamics of hydrological threshold events. Hydrology and Earth System Sciences, 2007, 11, 923-938.	4.9	48
128	Spatiotemporal averaging of inâ€stream solute removal dynamics. Water Resources Research, 2011, 47, .	4.2	48
129	Understanding Flood Seasonality and Its Temporal Shifts within the Contiguous United States. Journal of Hydrometeorology, 2017, 18, 1997-2009.	2.0	48
130	The Growth of Hydrological Understanding: Technologies, Ideas, and Societal Needs Shape the Field. Water Resources Research, 2017, 53, 8137-8146.	4.2	48
131	Evaluation of the effects of general circulation models' subgrid variability and patchiness of rainfall and soil moisture on land surface water balance fluxes. Hydrological Processes, 1995, 9, 697-717.	2.6	47
132	Dissolved nutrient retention dynamics in river networks: A modeling investigation of transient flows and scale effects. Water Resources Research, 2012, 48, .	4.2	47
133	Norms and values in sociohydrological models. Hydrology and Earth System Sciences, 2018, 22, 1337-1349.	4.9	47
134	On the relationship between the time condensation approximation and the flux concentration relation. Journal of Hydrology, 1989, 105, 357-367.	5.6	46
135	Water and salt balance modelling to predict the effects of land-use changes in forested catchments. 3. The large catchment model. Hydrological Processes, 1996, 10, 429-446.	2.6	46
136	Predictions of rainfall-runoff response and soil moisture dynamics in a microscale catchment using the CREW model. Hydrology and Earth System Sciences, 2007, 11, 819-849.	4.9	46
137	Extension of the Representative Elementary Watershed approach for cold regions: constitutive relationships and an application. Hydrology and Earth System Sciences, 2008, 12, 565-585.	4.9	46
138	Patterns of regional hydroclimatic shifts: An analysis of changing hydrologic regimes. Water Resources Research, 2014, 50, 1960-1983.	4.2	46
139	Spatio-temporal patterns of the effects of precipitation variability and land use/cover changes on long-term changes in sediment yield in the Loess Plateau, China. Hydrology and Earth System Sciences, 2017, 21, 4363-4378.	4.9	46
140	INSTANTANEOUS RESPONSE FUNCTIONS OF OVERLAND FLOW AND SUBSURFACE STORMFLOW FOR CATCHMENT MODELS. Hydrological Processes, 1996, 10, 845-862.	2.6	45
141	Modelling catchment processes in the Swan-Avon river basin. Hydrological Processes, 2001, 15, 2671-2685.	2.6	45
142	Water and nutrient balances in a large tile-drained agricultural catchment: a distributed modeling study. Hydrology and Earth System Sciences, 2010, 14, 2259-2275.	4.9	45
143	Effect of spatial heterogeneity of runoff generation mechanisms on the scaling behavior of event runoff responses in a natural river basin. Water Resources Research, 2011, 47, .	4.2	45
144	Water cycle dynamics in a changing environment: Improving predictability through synthesis. Water Resources Research, 2011, 47, .	4.2	45

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145	Allocating Environmental Water and Impact on Basin Unemployment: Role of A Diversified Economy. Ecological Economics, 2017, 136, 178-188.	5.9	45
146	Multiscale temporal variability of flow-sediment relationships during the 1950sâ€“2014 in the Loess Plateau, China. Journal of Hydrology, 2018, 563, 609-619.	5.6	45
147	Modelling water balances in an Alpine catchment through exploitation of emergent properties over changing time scales. Hydrological Processes, 2003, 17, 2125-2149.	2.6	44
148	Model diagnostic analysis of seasonal switching of runoff generation mechanisms in the Blue River basin, Oklahoma. Journal of Hydrology, 2012, 418-419, 136-149.	5.6	44
149	Temporal scales of rainfallâ€“runoff processes and spatial scaling of flood peaks: spaceâ€“time connection through catchment water balance. Advances in Water Resources, 2001, 24, 1015-1036.	3.8	43
150	Predictions in ungauged basins as a catalyst for multidisciplinary hydrology. Eos, 2004, 85, 451.	0.1	43
151	Scale problems in hydrology: Contributions of the robertson workshop. Hydrological Processes, 1995, 9, 243-250.	2.6	42
152	A network model for prediction and diagnosis of sediment dynamics at the watershed scale. Journal of Geophysical Research, 2012, 117, .	3.3	42
153	A thermodynamic interpretation of Budyko and L'vovich formulations of annual water balance: Proportionality Hypothesis and maximum entropy production. Water Resources Research, 2015, 51, 3007-3016.	4.2	42
154	Critical drought intensity-duration-frequency curves based on total probability theorem-coupled frequency analysis. Hydrological Sciences Journal, 2021, 66, 1337-1358.	2.7	42
155	Stochastic characterization of the onset of and recovery from hypoxia in Tokyo Bay, Japan: Derived distribution analysis based on â€œstrong windâ€•events. Water Resources Research, 2010, 46, .	4.2	41
156	A connection between topographically driven runoff generation and channel network structure. Water Resources Research, 1997, 33, 2939-2950.	4.2	40
157	Effects of hydraulic conductivity variability on hillslopeâ€scale shallow subsurface flow response and storageâ€discharge relations. Water Resources Research, 2009, 45, .	4.2	40
158	Links between flood frequency and annual water balance behaviors: A basis for similarity and regionalization. Water Resources Research, 2014, 50, 937-953.	4.2	40
159	Spatial patterns of vegetation, soils, and microtopography from terrestrial laser scanning on two semiarid hillslopes of contrasting lithology. Journal of Geophysical Research G: Biogeosciences, 2014, 119, 163-180.	3.0	40
160	Threshold effects in catchment storm response and the occurrence and magnitude of flood events: implications for flood frequency. Hydrology and Earth System Sciences, 2007, 11, 1515-1528.	4.9	39
161	Identifying a rainfall event threshold triggering herbicide leaching by preferential flow. Water Resources Research, 2010, 46, .	4.2	38
162	Role of Sectoral Transformation in the Evolution of Water Management Norms in Agricultural Catchments: A Sociohydrologic Modeling Analysis. Water Resources Research, 2017, 53, 8344-8365.	4.2	36

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163	A generalized, non-linear, diffusion wave equation: theoretical development and application. Journal of Hydrology, 1997, 192, 1-16.	5.6	35
164	Effect of storm movement on flood peaks: Analysis framework based on characteristic timescales. Water Resources Research, 2012, 48, .	4.2	35
165	Regionalization of subsurface stormflow parameters of hydrologic models: Derivation from regional analysis of streamflow recession curves. Journal of Hydrology, 2014, 519, 670-682.	5.6	35
166	Parameterizing the effect of a wind shelter on evaporation from small water bodies. Water Resources Research, 2003, 39, .	4.2	34
167	Modelling the effects of land-use modifications to control nutrient loads from an agricultural catchment in Western Australia. Ecological Modelling, 2005, 187, 60-70.	2.5	34
168	Functional approach to exploring climatic and landscape controls of runoff generation: 1. Behavioral constraints on runoff volume. Water Resources Research, 2014, 50, 9300-9322.	4.2	34
169	Socio-hydrologic modeling of the dynamics of cooperation in the transboundary Lancangâ€“Mekong River. Hydrology and Earth System Sciences, 2021, 25, 1883-1903.	4.9	33
170	Assessing the impact of climate variability on catchment water balance and vegetation cover. Hydrology and Earth System Sciences, 2012, 16, 43-58.	4.9	32
171	An Urban Sociohydrologic Model for Exploration of Beijing's Water Sustainability Challenges and Solution Spaces. Water Resources Research, 2019, 55, 5918-5940.	4.2	32
172	The role of ?top-down? modelling for Prediction in Ungauged Basins (PUB). Hydrological Processes, 2003, 17, 1673-1679.	2.6	31
173	Dominant physical controls on hourly flow predictions and the role of spatial variability: Mahurangi catchment, New Zealand. Advances in Water Resources, 2003, 26, 219-235.	3.8	31
174	An integrated modeling framework for exploring flow regime and water quality changes with increasing biofuel crop production in the<scp>U.S.</scp><scp>C</scp>orn<scp>B</scp>elt. Water Resources Research, 2014, 50, 9385-9404.	4.2	31
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