

Bettina Schaepli

List of Publications by Year in descending order

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Version: 2024-02-01

56
papers

4,613
citations

172386

29
h-index

149623

56
g-index

162
all docs

162
docs citations

162
times ranked

5250
citing authors

#	ARTICLE	IF	CITATIONS
1	Origin and fate of atmospheric moisture over continents. <i>Water Resources Research</i> , 2010, 46, .	1.7	586
2	â€œPanta Rheiâ€”Everything Flowsâ€” Change in hydrology and societyâ€”The IAHS Scientific Decade 2013â€”2022. <i>Hydrological Sciences Journal</i> , 2013, 58, 1256-1275.	1.2	569
3	Do Nash values have value?. <i>Hydrological Processes</i> , 2007, 21, 2075-2080.	1.1	486
4	Twenty-three unsolved problems in hydrology (UPH) â€” a community perspective. <i>Hydrological Sciences Journal</i> , 2019, 64, 1141-1158.	1.2	474
5	Climate change and hydropower production in the Swiss Alps: quantification of potential impacts and related modelling uncertainties. <i>Hydrology and Earth System Sciences</i> , 2007, 11, 1191-1205.	1.9	214
6	Assessment of climate-change impacts on alpine discharge regimes with climate model uncertainty. <i>Hydrological Processes</i> , 2006, 20, 2091-2109.	1.1	199
7	On the calibration of hydrological models in ungauged basins: A framework for integrating hard and soft hydrological information. <i>Water Resources Research</i> , 2009, 45, .	1.7	162
8	A conceptual glacio-hydrological model for high mountainous catchments. <i>Hydrology and Earth System Sciences</i> , 2005, 9, 95-109.	1.9	159
9	What drives high flow events in the Swiss Alps? Recent developments in wavelet spectral analysis and their application to hydrology. <i>Advances in Water Resources</i> , 2007, 30, 2511-2525.	1.7	106
10	Quantifying hydrological modeling errors through a mixture of normal distributions. <i>Journal of Hydrology</i> , 2007, 332, 303-315.	2.3	94
11	Improving the Predictive Skill of a Distributed Hydrological Model by Calibration on Spatial Patterns With Multiple Satellite Data Sets. <i>Water Resources Research</i> , 2020, 56, e2019WR026085.	1.7	93
12	Analysing the temporal dynamics of model performance for hydrological models. <i>Hydrology and Earth System Sciences</i> , 2009, 13, 999-1018.	1.9	85
13	HESSE Opinions: Hydrologic predictions in a changing environment: behavioral modeling. <i>Hydrology and Earth System Sciences</i> , 2011, 15, 635-646.	1.9	82
14	Improving the theoretical underpinnings of processâ€”based hydrologic models. <i>Water Resources Research</i> , 2016, 52, 2350-2365.	1.7	80
15	Understanding snow hydrological processes through the lens of stable water isotopes. <i>Wiley Interdisciplinary Reviews: Water</i> , 2018, 5, e1311.	2.8	76
16	Projecting hydropower production under future climates: a guide for decisionâ€”makers and modelers to interpret and design climate change impact assessments. <i>Wiley Interdisciplinary Reviews: Water</i> , 2015, 2, 271-289.	2.8	71
17	Potential of satellite and reanalysis evaporation datasets for hydrological modelling under various model calibration strategies. <i>Advances in Water Resources</i> , 2020, 143, 103667.	1.7	62
18	Integrating point glacier mass balance observations into hydrologic model identification. <i>Hydrology and Earth System Sciences</i> , 2011, 15, 1227-1241.	1.9	57

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19	The role of glacier retreat for Swiss hydropower production. <i>Renewable Energy</i> , 2019, 132, 615-627.	4.3	56
20	Stream temperature and discharge evolution in Switzerland over the last 50 years: annual and seasonal behaviour. <i>Hydrology and Earth System Sciences</i> , 2020, 24, 115-142.	1.9	55
21	Signature-based model calibration for hydrological prediction in mesoscale Alpine catchments. <i>Hydrological Sciences Journal</i> , 2010, 55, 1002-1016.	1.2	53
22	Spatial interpolation of precipitation from multiple rain gauge networks and weather radar data for operational applications in Alpine catchments. <i>Journal of Hydrology</i> , 2018, 563, 1092-1110.	2.3	51
23	Suitability of 17 gridded rainfall and temperature datasets for large-scale hydrological modelling in West Africa. <i>Hydrology and Earth System Sciences</i> , 2020, 24, 5379-5406.	1.9	48
24	Hydrological model performance and parameter estimation in the wavelet-domain. <i>Hydrology and Earth System Sciences</i> , 2009, 13, 1921-1936.	1.9	44
25	Gap-filling of daily streamflow time series using Direct Sampling in various hydroclimatic settings. <i>Journal of Hydrology</i> , 2019, 569, 573-586.	2.3	43
26	Analytic probability distributions for snow-dominated streamflow. <i>Water Resources Research</i> , 2013, 49, 2701-2713.	1.7	37
27	Improving the degree-day method for sub-daily melt simulations with physically-based diurnal variations. <i>Advances in Water Resources</i> , 2013, 55, 149-164.	1.7	37
28	Stream temperature prediction in ungauged basins: review of recent approaches and description of a new physics-derived statistical model. <i>Hydrology and Earth System Sciences</i> , 2015, 19, 3727-3753.	1.9	37
29	Scale-dependent effects of solar radiation patterns on the snow-dominated hydrologic response. <i>Geophysical Research Letters</i> , 2015, 42, 3895-3902.	1.5	35
30	Toward a robust method for subdaily rainfall downscaling from daily data. <i>Water Resources Research</i> , 2011, 47, .	1.7	30
31	SEHR-ECHO v1.0: a Spatially Explicit Hydrologic Response model for ecohydrologic applications. <i>Geoscientific Model Development</i> , 2014, 7, 2733-2746.	1.3	29
32	Snow hydrology signatures for model identification within a limits of acceptability approach. <i>Hydrological Processes</i> , 2016, 30, 4019-4035.	1.1	23
33	Thermodynamics in the hydrologic response: Travel time formulation and application to alpine catchments. <i>Water Resources Research</i> , 2015, 51, 1671-1687.	1.7	20
34	Low-flow behavior of alpine catchments with varying quaternary cover under current and future climatic conditions. <i>Journal of Hydrology</i> , 2021, 592, 125591.	2.3	20
35	Snowfall Limit Forecasts and Hydrological Modeling. <i>Journal of Hydrometeorology</i> , 2012, 13, 1507-1519.	0.7	19
36	Estimation of streamflow recession parameters: New insights from an analytic streamflow distribution model. <i>Hydrological Processes</i> , 2019, 33, 1595-1609.	1.1	19

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37	Comparing MODIS snow products Collection 5 with Collection 6 over Italian Central Apennines. <i>International Journal of Remote Sensing</i> , 2020, 41, 4174-4205.	1.3	19
38	Accounting for global-mean warming and scaling uncertainties in climate change impact studies: application to a regulated lake system. <i>Hydrology and Earth System Sciences</i> , 2007, 11, 1207-1226.	1.9	17
39	HydroMix v1.0: a new Bayesian mixing framework for attributing uncertain hydrological sources. <i>Geoscientific Model Development</i> , 2020, 13, 2433-2450.	1.3	16
40	Future water temperature of rivers in Switzerland under climate change investigated with physics-based models. <i>Hydrology and Earth System Sciences</i> , 2022, 26, 1063-1087.	1.9	16
41	Why do we have so many different hydrological models? A review based on the case of Switzerland. <i>Wiley Interdisciplinary Reviews: Water</i> , 2022, 9, .	2.8	16
42	A robust framework for probabilistic precipitations downscaling from an ensemble of climate predictions applied to Switzerland. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	15
43	Analytical flow duration curves for summer streamflow in Switzerland. <i>Hydrology and Earth System Sciences</i> , 2018, 22, 2377-2389.	1.9	15
44	Seasonal snow cover decreases young water fractions in high Alpine catchments. <i>Hydrological Processes</i> , 2020, 34, 4794-4813.	1.1	15
45	Benefits from high-density rain gauge observations for hydrological response analysis in a small alpine catchment. <i>Hydrology and Earth System Sciences</i> , 2021, 25, 2301-2325.	1.9	12
46	Contrasting changes in hydrological processes of the Volta River basin under global warming. <i>Hydrology and Earth System Sciences</i> , 2022, 26, 1481-1506.	1.9	12
47	An analytical model for soil-atmosphere feedback. <i>Hydrology and Earth System Sciences</i> , 2012, 16, 1863-1878.	1.9	11
48	Downsizing parameter ensembles for simulations of rare floods. <i>Natural Hazards and Earth System Sciences</i> , 2020, 20, 3521-3549.	1.5	9
49	Hydrological Drivers of Bedload Transport in an Alpine Watershed. <i>Water Resources Research</i> , 2022, 58, .	1.7	9
50	Bayesian spectral likelihood for hydrological parameter inference. <i>Water Resources Research</i> , 2017, 53, 6857-6884.	1.7	8
51	Swiss Rainfall Mass Curves and their Influence on Extreme Flood Simulation. <i>Water Resources Management</i> , 2018, 32, 2625-2638.	1.9	8
52	Influence of warming and atmospheric circulation changes on multidecadal European flood variability. <i>Climate of the Past</i> , 2022, 18, 919-933.	1.3	6
53	On the links between sub-seasonal clustering of extreme precipitation and high discharge in Switzerland and Europe. <i>Hydrology and Earth System Sciences</i> , 2022, 26, 2649-2669.	1.9	6
54	Relevance of the correlation between precipitation and the 0 °C isothermal altitude for extreme flood estimation. <i>Journal of Hydrology</i> , 2017, 551, 177-187.	2.3	5

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55	New Approach to Identifying Critical Initial Conditions for Extreme Flood Simulations in a Semicontinuous Simulation Framework. <i>Journal of Hydrologic Engineering - ASCE</i> , 2018, 23, .	0.8	5
56	Environmental DNA simultaneously informs hydrological and biodiversity characterization of an Alpine catchment. <i>Hydrology and Earth System Sciences</i> , 2021, 25, 735-753.	1.9	5