

H E Beck

List of Publications by Year in descending order

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Version: 2024-02-01

68
papers

11,674
citations

87888
38
h-index

102487
66
g-index

122
all docs

122
docs citations

122
times ranked

12439
citing authors

#	ARTICLE	IF	CITATIONS
1	Present and future Köppen-Geiger climate classification maps at 1-km resolution. <i>Scientific Data</i> , 2018, 5, 180214.	5.3	3,005
2	GLEAMv3: satellite-based land evaporation and root-zone soil moisture. <i>Geoscientific Model Development</i> , 2017, 10, 1903-1925.	3.6	1,352
3	The Millennium Drought in southeast Australia (2001–2009): Natural and human causes and implications for water resources, ecosystems, economy, and society. <i>Water Resources Research</i> , 2013, 49, 1040-1057.	4.2	977
4	MSWEP: 3-hourly 0.25° global gridded precipitation (1979–2015) by merging gauge, satellite, and reanalysis data. <i>Hydrology and Earth System Sciences</i> , 2017, 21, 589-615.	4.9	742
5	MSWEP V2 Global 3-Hourly 0.1° Precipitation: Methodology and Quantitative Assessment. <i>Bulletin of the American Meteorological Society</i> , 2019, 100, 473-500.	3.3	592
6	Global-scale evaluation of 22 precipitation datasets using gauge observations and hydrological modeling. <i>Hydrology and Earth System Sciences</i> , 2017, 21, 6201-6217.	4.9	541
7	Daily evaluation of 26 precipitation datasets using Stage-IV gauge-radar data for the CONUS. <i>Hydrology and Earth System Sciences</i> , 2019, 23, 207-224.	4.9	325
8	Global evaluation of four AVHRR–NDVI data sets: Intercomparison and assessment against Landsat imagery. <i>Remote Sensing of Environment</i> , 2011, 115, 2547-2563.	11.0	273
9	El Niño–La Niña cycle and recent trends in continental evaporation. <i>Nature Climate Change</i> , 2014, 4, 122-126.	18.8	254
10	Satellite Remote Sensing for Water Resources Management: Potential for Supporting Sustainable Development in Data-Poor Regions. <i>Water Resources Research</i> , 2018, 54, 9724-9758.	4.2	247
11	Global-scale regionalization of hydrologic model parameters. <i>Water Resources Research</i> , 2016, 52, 3599-3622.	4.2	241
12	Global patterns in base flow index and recession based on streamflow observations from 3394 catchments. <i>Water Resources Research</i> , 2013, 49, 7843-7863.	4.2	200
13	Global Reconstruction of Naturalized River Flows at 2.94 Million Reaches. <i>Water Resources Research</i> , 2019, 55, 6499-6516.	4.2	175
14	A global water resources ensemble of hydrological models: the earth2Observe Tier-1 dataset. <i>Earth System Science Data</i> , 2017, 9, 389-413.	9.9	169
15	Evaluation of 18 satellite- and model-based soil moisture products using in situ measurements from 826 sensors. <i>Hydrology and Earth System Sciences</i> , 2021, 25, 17-40.	4.9	156
16	Global evaluation of runoff from 10 state-of-the-art hydrological models. <i>Hydrology and Earth System Sciences</i> , 2017, 21, 2881-2903.	4.9	146
17	Global Maps of Streamflow Characteristics Based on Observations from Several Thousand Catchments*. <i>Journal of Hydrometeorology</i> , 2015, 16, 1478-1501.	1.9	136
18	RF-MEP: A novel Random Forest method for merging gridded precipitation products and ground-based measurements. <i>Remote Sensing of Environment</i> , 2020, 239, 111606.	11.0	135

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19	Global analysis of seasonal streamflow predictability using an ensemble prediction system and observations from 6192 small catchments worldwide. <i>Water Resources Research</i> , 2013, 49, 2729-2746.	4.2	105
20	Bias Correction of Global High-Resolution Precipitation Climatologies Using Streamflow Observations from 9372 Catchments. <i>Journal of Climate</i> , 2020, 33, 1299-1315.	3.2	94
21	A Climate Data Record (CDR) for the global terrestrial water budget: 1984–2010. <i>Hydrology and Earth System Sciences</i> , 2018, 22, 241-263.	4.9	91
22	Calibration of the Global Flood Awareness System (GloFAS) using daily streamflow data. <i>Journal of Hydrology</i> , 2018, 566, 595-606.	5.4	90
23	River gauging at global scale using optical and passive microwave remote sensing. <i>Water Resources Research</i> , 2016, 52, 6404-6418.	4.2	87
24	The impact of forest regeneration on streamflow in 12 mesoscale humid tropical catchments. <i>Hydrology and Earth System Sciences</i> , 2013, 17, 2613-2635.	4.9	85
25	Improving Curve Number Based Storm Runoff Estimates Using Soil Moisture Proxies. <i>IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing</i> , 2009, 2, 250-259.	4.9	84
26	The impact of lake and reservoir parameterization on global streamflow simulation. <i>Journal of Hydrology</i> , 2017, 548, 552-568.	5.4	82
27	Long-term CO ₂ fertilization increases vegetation productivity and has little effect on hydrological partitioning in tropical rainforests. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2016, 121, 2125-2140.	3.0	71
28	From calibration to parameter learning: Harnessing the scaling effects of big data in geoscientific modeling. <i>Nature Communications</i> , 2021, 12, 5988.	12.8	68
29	Global Climate. <i>Bulletin of the American Meteorological Society</i> , 2020, 101, S9-S128.	3.3	61
30	Combining hyper-resolution land surface modeling with SMAP brightness temperatures to obtain 30-m soil moisture estimates. <i>Remote Sensing of Environment</i> , 2020, 242, 111740.	11.0	59
31	Disconnection Between Trends of Atmospheric Drying and Continental Runoff. <i>Water Resources Research</i> , 2018, 54, 4700-4713.	4.2	58
32	Assessing the Steady-State Assumption in Water Balance Calculation Across Global Catchments. <i>Water Resources Research</i> , 2020, 56, e2020WR027392.	4.2	52
33	Filling the gaps: Calibrating a rainfall-runoff model using satellite-derived surface water extent. <i>Remote Sensing of Environment</i> , 2015, 171, 118-131.	11.0	51
34	Assessing placement bias of the global river gauge network. <i>Nature Sustainability</i> , 2022, 5, 586-592.	23.7	51
35	A Geospatial Assessment of Small-Scale Hydropower Potential in Sub-Saharan Africa. <i>Energies</i> , 2018, 11, 3100.	3.1	44
36	In Quest of Calibration Density and Consistency in Hydrologic Modeling: Distributed Parameter Calibration against Streamflow Characteristics. <i>Water Resources Research</i> , 2019, 55, 7784-7803.	4.2	44

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37	Global Fully Distributed Parameter Regionalization Based on Observed Streamflow From 4,229 Headwater Catchments. <i>Journal of Geophysical Research D: Atmospheres</i> , 2020, 125, e2019JD031485.	3.3	44
38	Global 5-km resolution estimates of secondary evaporation including irrigation through satellite data assimilation. <i>Hydrology and Earth System Sciences</i> , 2018, 22, 4959-4980.	4.9	38
39	FLO1K, global maps of mean, maximum and minimum annual streamflow at 1 km resolution from 1960 through 2015. <i>Scientific Data</i> , 2018, 5, 180052.	5.3	37
40	Uncertainty of modelled flow regime for flow-ecological assessment in Southern Europe. <i>Science of the Total Environment</i> , 2018, 615, 1028-1047.	8.0	35
41	Linear Optimal Runoff Aggregate (LORA): a global gridded synthesis runoff product. <i>Hydrology and Earth System Sciences</i> , 2019, 23, 851-870.	4.9	35
42	What is the hydrologically effective area of a catchment?. <i>Environmental Research Letters</i> , 2020, 15, 104024.	5.2	33
43	MSWX: Global 3-Hourly 0.1° Bias-Corrected Meteorological Data Including Near-Real-Time Updates and Forecast Ensembles. <i>Bulletin of the American Meteorological Society</i> , 2022, 103, E710-E732.	3.3	30
44	Exploring the merging of the global land evaporation WACMOS-ET products based on local tower measurements. <i>Hydrology and Earth System Sciences</i> , 2018, 22, 4513-4533.	4.9	28
45	Global Reach-Level 3-Hourly River Flood Reanalysis (1980–2019). <i>Bulletin of the American Meteorological Society</i> , 2021, 102, E2086-E2105.	3.3	25
46	Reanalysis in Earth System Science: Toward Terrestrial Ecosystem Reanalysis. <i>Reviews of Geophysics</i> , 2021, 59, e2020RG000715.	23.0	24
47	Global-Scale Evaluation of 22 Precipitation Datasets Using Gauge Observations and Hydrological Modeling. <i>Advances in Global Change Research</i> , 2020, , 625-653.	1.6	24
48	SMAP-HydroBlocks, a 30-m satellite-based soil moisture dataset for the conterminous US. <i>Scientific Data</i> , 2021, 8, 264.	5.3	24
49	Field-scale soil moisture bridges the spatial-scale gap between drought monitoring and agricultural yields. <i>Hydrology and Earth System Sciences</i> , 2021, 25, 1827-1847.	4.9	23
50	Global satellite-based river gauging and the influence of river morphology on its application. <i>Remote Sensing of Environment</i> , 2020, 239, 111629.	11.0	21
51	Satellite Flood Inundation Assessment and Forecast Using SMAP and Landsat. <i>IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing</i> , 2021, 14, 6707-6715.	4.9	20
52	On the selection of precipitation products for the regionalisation of hydrological model parameters. <i>Hydrology and Earth System Sciences</i> , 2021, 25, 5805-5837.	4.9	17
53	A Vector-Based River Routing Model for Earth System Models: Parallelization and Global Applications. <i>Journal of Advances in Modeling Earth Systems</i> , 2021, 13, e2020MS002434.	3.8	16
54	Global Evaluation of Seasonal Precipitation and Temperature Forecasts from NMME. <i>Journal of Hydrometeorology</i> , 2020, 21, 2473-2486.	1.9	15

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55	Remotely sensed reservoir water storage dynamics (1984–2015) and the influence of climate variability and management at a global scale. <i>Hydrology and Earth System Sciences</i> , 2022, 26, 3785-3803.	4.9	15
56	PPDIST, global 0.1° daily and 3-hourly precipitation probability distribution climatologies for 1979–2018. <i>Scientific Data</i> , 2020, 7, 302.	5.3	12
57	Low and contrasting impacts of vegetation CO ₂ fertilization on global terrestrial runoff over 1982–2010: accounting for aboveground and belowground vegetation CO ₂ effects. <i>Hydrology and Earth System Sciences</i> , 2021, 25, 3411-3427.	4.9	11
58	Central American mountains inhibit eastern North Pacific seasonal tropical cyclone activity. <i>Nature Communications</i> , 2021, 12, 4422.	12.8	10
59	Impacts of El Niño–southern oscillation on global runoff: Characteristic signatures and potential mechanisms. <i>Hydrological Processes</i> , 2021, 35, e14367.	2.6	7
60	Reconciling historical changes in the hydrological cycle over land. <i>Npj Climate and Atmospheric Science</i> , 2022, 5, .	6.8	7
61	Divergent negative spring vegetation and summer runoff patterns and their driving mechanisms in natural ecosystems of northern latitudes. <i>Journal of Hydrology</i> , 2021, 592, 125848.	5.4	6
62	Assessment of Precipitation Error Propagation in Discharge Simulations over the Contiguous United States. <i>Journal of Hydrometeorology</i> , 2021, , .	1.9	6
63	Performance of State-of-the-Art C3S European Seasonal Climate Forecast Models for Mean and Extreme Precipitation Over Africa. <i>Water Resources Research</i> , 2022, 58, .	4.2	6
64	Synergistic Satellite Assessment of Global Vegetation Health in Relation to ENSO-Induced Droughts and Pluvials. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2021, 126, e2020JG006006.	3.0	4
65	Model cascade from meteorological drivers to river flood hazard: flood-cascade v1.0. <i>Geoscientific Model Development</i> , 2021, 14, 4865-4890.	3.6	4
66	Satellite Flood Assessment and Forecasts from SMAP and Landsat. , 2020, , .		3
67	Strengthening Flood and Drought Risk Management Tools for the Lake Chad Basin. , 2021, , 387-405.		2
68	Cyclones and Global Floods from an Observation-Simulation Evaluation: Contributions and Long-Term Changes. <i>Water (Switzerland)</i> , 2021, 13, 2965.	2.7	0