Juraj Parajka

List of Publications by Year
in descending order

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116 papers	8,377 citations	57719 44 h-index	51562 86 g-index
173 all docs	173 docs citations	173 times ranked	7334 citing authors

#	Article	IF	Citations
1	Changing climate both increases and decreases European river floods. Nature, 2019, 573, 108-111.	13.7	639
2	Changing climate shifts timing of European floods. Science, 2017, 357, 588-590.	6.0	584
3	Understanding flood regime changes in Europe: a state-of-the-art assessment. Hydrology and Earth System Sciences, 2014, 18, 2735-2772.	1.9	423
4	Time stability of catchment model parameters: Implications for climate impact analyses. Water Resources Research, 2011, 47, .	1.7	334
5	A comparison of regionalisation methods for catchment model parameters. Hydrology and Earth System Sciences, 2005, 9, 157-171.	1.9	309
6	Land use change impacts on floods at the catchment scale: Challenges and opportunities for future research. Water Resources Research, 2017, 53, 5209-5219.	1.7	269
7	Bacterial diversity along a 2600â€‰km river continuum. Environmental Microbiology, 2015, 17, 4994-5007.	1.8	265
8	Spatioâ€temporal combination of MODIS images â€“ potential for snow cover mapping. Water Resources Research, 2008, 44, .	1.7	254
9	The value of MODIS snow cover data in validating and calibrating conceptual hydrologic models. Journal of Hydrology, 2008, 358, 240-258.	2.3	213
10	Spatio-temporal variability of event runoff coefficients. Journal of Hydrology, 2006, 331, 591-604.	2.3	212
11	Validation of MODIS snow cover images over Austria. Hydrology and Earth System Sciences, 2006, 10, 679-689.	1.9	199
12	Comparative assessment of predictions in ungauged basins â€“ Part 1: Runoff-hydrograph studies. Hydrology and Earth System Sciences, 2013, 17, 1783-1795.	1.9	186
13	The June 2013 flood in the Upper Danube Basin, and comparisons with the 2002, 1954 and 1899 floods. Hydrology and Earth System Sciences, 2013, 17, 5197-5212.	1.9	182
14	Seasonal characteristics of flood regimes across the Alpineâ€“Carpathian range. Journal of Hydrology, 2010, 394, 78-89.	2.3	181
15	Uncertainty and multiple objective calibration in regional water balance modelling: case study in 320 Austrian catchments. Hydrological Processes, 2007, 21, 435-446.	1.1	157
16	Flood timescales: Understanding the interplay of climate and catchment processes through comparative hydrology. Water Resources Research, 2012, 48, .	1.7	156
17	Current European flood-rich period exceptional compared with past 500Âyears. Nature, 2020, 583, 560-566.	13.7	154
18	Assimilating scatterometer soil moisture data into conceptual hydrologic models at the regional scale. Hydrology and Earth System Sciences, 2006, 10, 353-368.	1.9	142

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19	A regional snow-line method for estimating snow cover from MODIS during cloud cover. Journal of Hydrology, 2010, 381, 203-212.	2.3	137
20	More green and less blue water in the Alps during warmer summers. Nature Climate Change, 2020, 10, 155-161.	8.1	134
21	Scale effects in conceptual hydrological modeling. Water Resources Research, 2009, 45, .	1.7	124
22	Increasing river floods: fiction or reality?. Wiley Interdisciplinary Reviews: Water, 2015, 2, 329-344.	2.8	123
23	Regional calibration of catchment models: Potential for ungauged catchments. Water Resources Research, 2007, 43, .	1.7	118
24	Multivariate Interpolation of Precipitation Using Regularized Spline with Tension. Transactions in GIS, 2002, 6, 135-150.	1.0	107
25	Hydrology under change: an evaluation protocol to investigate how hydrological models deal with changing catchments. Hydrological Sciences Journal, 2015, 60, 1184-1199.	1.2	105
26	Comparative assessment of predictions in ungauged basins â€“ Part 2: Flood and low flow studies. Hydrology and Earth System Sciences, 2013, 17, 2637-2652.	1.9	95
27	Comparative assessment of predictions in ungauged basins â€“ Part 3: Runoff signatures in Austria. Hydrology and Earth System Sciences, 2013, 17, 2263-2279.	1.9	93
28	The influence of non-stationarity in extreme hydrological events on flood frequency estimation. Journal of Hydrology and Hydromechanics, 2016, 64, 426-437.	0.7	88
29	Constraining Conceptual Hydrological Models With Multiple Information Sources. Water Resources Research, 2018, 54, 8332-8362.	1.7	85
30	Potential of timeâ€lapse photography of snow for hydrological purposes at the small catchment scale. Hydrological Processes, 2012, 26, 3327-3337.	1.1	84
31	Advancing catchment hydrology to deal with predictions under change. Hydrology and Earth System Sciences, 2014, 18, 649-671.	1.9	83
32	The Hydrological Open Air Laboratory (HOAL) in Petzenkirchen: a hypothesis-driven observatory. Hydrology and Earth System Sciences, 2016, 20, 227-255.	1.9	77
33	MODIS snow cover mapping accuracy in a small mountain catchment â€“ comparison between open and forest sites. Hydrology and Earth System Sciences, 2012, 16, 2365-2377.	1.9	75
34	Attribution of regional flood changes based on scaling fingerprints. Water Resources Research, 2016, 52, 5322-5340.	1.7	75
35	Matching ERS scatterometer based soil moisture patterns with simulations of a conceptual dual layer hydrologic model over Austria. Hydrology and Earth System Sciences, 2009, 13, 259-271.	1.9	69
36	Comparative analysis of the seasonality of hydrological characteristics in Slovakia and Austria / Analyse comparative de la saisonnalitÃ© de caractÃ©ristiques hydrologiques en Slovaquie et en Autriche. Hydrological Sciences Journal, 2009, 54, 456-473.	1.2	68

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37	Detection of trends in magnitude and frequency of flood peaks across Europe. Hydrological Sciences Journal, 2018, 63, 493-512.	1.2	68
38	Dependence between flood peaks and volumes: a case study on climate and hydrological controls. Hydrological Sciences Journal, 2015, 60, 968-984.	1.2	67
39	Estimating degree-day factors from MODIS for snowmelt runoff modeling. Hydrology and Earth System Sciences, 2014, 18, 4773-4789.	1.9	63
40	Virtual laboratories: new opportunities for collaborative water science. Hydrology and Earth System Sciences, 2015, 19, 2101-2117.	1.9	63
41	Hydrological drought types in cold climates: quantitative analysis of causing factors and qualitative survey of impacts. Hydrology and Earth System Sciences, 2015, 19, 1993-2016.	1.9	62
42	Comparison of mapping approaches of design annual maximum daily precipitation. Atmospheric Research, 2009, 92, 289-307.	1.8	56
43	Estimation of regional snowline elevation (RSLE) from MODIS images for seasonally snow covered mountain basins. Journal of Hydrology, 2014, 519, 1769-1778.	2.3	50
44	A novel integrated modelling framework to assess the impacts of climate and socio-economic drivers on land use and water quality. Science of the Total Environment, 2017, 579, 1137-1151.	3.9	46
45	Why does a conceptual hydrological model fail to correctly predict discharge changes in response to climate change?. Hydrology and Earth System Sciences, 2020, 24, 3493-3511.	1.9	46
46	rtop: An R package for interpolation of data with a variable spatial support, with an example from river networks. Computers and Geosciences, 2014, 67, 180-190.	2.0	43
47	Long term variability of the Danube River flow and its relation to precipitation and air temperature. Journal of Hydrology, 2014, 519, 871-880.	2.3	41
48	Evaluating the snow component of a flood forecasting model. Hydrology Research, 2012, 43, 762-779.	1.1	37
49	Processâ€based interpretation of conceptual hydrological model performance using a multinational catchment set. Water Resources Research, 2017, 53, 7247-7268.	1.7	36
50	Prediction of flow duration curves in ungauged basins. , 2013, , 135-162.		35
51	Mapping snow cover from daily Collection 6 MODIS products over Austria. Journal of Hydrology, 2020, 590, 125548.	2.3	35
52	Uncertainty contributions to low-flow projections in Austria. Hydrology and Earth System Sciences, 2016, 20, 2085-2101.	1.9	34
53	Flashiness of mountain streams in Slovakia and Austria. Journal of Hydrology, 2011, 405, 392-401.	2.3	33
54	A European Flood Database: facilitating comprehensive flood research beyond administrative boundaries. Proceedings of the International Association of Hydrological Sciences, 0, 370, 89-95.	1.0	32

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55	The Added Value of Different Data Types for Calibrating and Testing a Hydrologic Model in a Small Catchment. Water Resources Research, 2020, 56, e2019WR026153.	1.7	30
56	Modelled impacts of policies and climate change on land use and water quality in Austria. Land Use Policy, 2018, 76, 500-514.	2.5	28
57	The role of station density for predicting daily runoff by top-kriging interpolation in Austria. Journal of Hydrology and Hydromechanics, 2015, 63, 228-234.	0.7	27
58	A regional comparative analysis of empirical and theoretical flood peak-volume relationships. Journal of Hydrology and Hydromechanics, 2016, 64, 367-381.	0.7	26
59	The effect of the snow weighting on the temporal stability of hydrologic model efficiency and parameters. Journal of Hydrology, 2020, 583, 124639.	2.3	25
60	The value of ASCAT soil moisture and MODIS snow cover data for calibrating a conceptual hydrologic model. Hydrology and Earth System Sciences, 2021, 25, 1389-1410.	1.9	25
61	Modelling the interplay of future changes and wastewater management measures on the microbiological river water quality considering safe drinking water production. Science of the Total Environment, 2021, 768, 144278.	3.9	22
62	Separation of Scales in Transpiration Effects on Low Flows: A Spatial Analysis in the Hydrological Open Air Laboratory. Water Resources Research, 2018, 54, 6168-6188.	1.7	21
63	Factors controlling alterations in the performance of a runoff model in changing climate conditions. Journal of Hydrology and Hydromechanics, 2018, 66, 381-392.	0.7	21
64	A three-pillar approach to assessing climate impacts on low flows. Hydrology and Earth System Sciences, 2016, 20, 3967-3985.	1.9	20
65	Importance of the informative content in the study area when regionalising rainfall-runoff model parameters: the role of nested catchments and gauging station density. Hydrology and Earth System Sciences, 2020, 24, 5149-5171.	1.9	20
66	Evaluation of snow cover and depth simulated by a land surface model using detailed regional snow observations from Austria. Journal of Geophysical Research, 2010, 115, .	3.3	19
67	Validation of drought indices using environmental indicators: streamflow and carbon flux data. Agricultural and Forest Meteorology, 2019, 265, 218-226.	1.9	19
68	A large sample analysis of European rivers on seasonal river flow correlation and its physical drivers. Hydrology and Earth System Sciences, 2019, 23, 73-91.	1.9	18
69	Floods in Austria. , 2019, , 169-177.		18
70	Variability of snow line elevation, snow cover area and depletion in the main Slovak basins in winters 2001â€“2014. Journal of Hydrology and Hydromechanics, 2016, 64, 12-22.	0.7	17
71	Technical note: Hydrology modelling R packages â€“ a unified analysis of models and practicalities from a user perspective. Hydrology and Earth System Sciences, 2021, 25, 3937-3973.	1.9	17
72	Potential of timeâ€lapse photography for identifying saturation area dynamics on agricultural hillslopes. Hydrological Processes, 2017, 31, 3610-3627.	1.1	16

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73	A framework estimating cumulative impact of damming on downstream water availability. Journal of Hydrology, 2019, 575, 612-627.	2.3	16
74	Variability of seasonal floods in the Upper Danube River basin. Journal of Hydrology and Hydromechanics, 2016, 64, 357-366.	0.7	16
75	MODIS-Based Snow Cover Products, Validation, and Hydrologic Applications. , 2012, , 185-212.		15
76	Modis Snowline Elevation Changes During Snowmelt Runoff Events in Europe. Journal of Hydrology and Hydromechanics, 2019, 67, 101-109.	0.7	14
77	The Impact of the Variability of Precipitation and Temperatures on the Efficiency of a Conceptual Rainfall-Runoff Model. Slovak Journal of Civil Engineering, 2016, 24, 1-7.	0.2	13
78	The KÃ¼htai data set: 25 years of lysimetric, snow pillow, and meteorological measurements. Water Resources Research, 2017, 53, 5158-5165.	1.7	11
79	Climate change impact and uncertainty analysis on hydrological extremes in a French Mediterranean catchment. Hydrological Sciences Journal, 2021, 66, 888-903.	1.2	10
80	Controls on event runoff coefficients and recession coefficients for different runoff generation mechanisms identified by three regression methods. Journal of Hydrology and Hydromechanics, 2020, 68, 155-169.	0.7	10
81	Characteristics and process controls of statistical flood moments in Europe â€“ a data-based analysis. Hydrology and Earth System Sciences, 2021, 25, 5535-5560.	1.9	10
82	Spatial and temporal variability of event runoff characteristics in a small agricultural catchment. Hydrological Sciences Journal, 2020, 65, 2185-2195.	1.2	9
83	Assessment of past flood changes across Europe based on flood-generating processes. Hydrological Sciences Journal, 2020, 65, 1830-1847.	1.2	9
84	Conceptual model building inspired by field-mapped runoff generation mechanisms. Journal of Hydrology and Hydromechanics, 2018, 66, 303-315.	0.7	9
85	Validation of the operational MSG-SEVIRI snow cover product over Austria. Hydrology and Earth System Sciences, 2014, 18, 763-774.	1.9	7
86	Emerging outcomes from a cross-disciplinary doctoral programme on water resource systems. Water Policy, 2017, 19, 463-478.	0.7	7
87	A geostatistical data-assimilation technique for enhancing macro-scale rainfallâ€“runoff simulations. Hydrology and Earth System Sciences, 2018, 22, 4633-4648.	1.9	7
88	Impact of Climate and Geology on Event Runoff Characteristics at the Regional Scale. Water (Switzerland), 2020, 12, 3457.	1.2	7
89	Mimicry of a Conceptual Hydrological Model (HBV): What's in a Name?. Water Resources Research, 2021, 57, e2020WR029143.	1.7	7
90	Seasonality of runoff and precipitation regimes along transects in Peru and Austria. Journal of Hydrology and Hydromechanics, 2017, 65, 347-358.	0.7	7

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91	Uncertainty in the Number of Calibration Repetitions of a Hydrologic Model in Varying Climatic Conditions. Water (Switzerland), 2020, 12, 2362.	1.2	6
92	Mapping of Gumbel Extreme Value Distribution Parameters for Estimation of Design Precipitation Totals at Ungauged Sites. , 2009, , 129-136.		6
93	Invigorating Hydrological Research Through Journal Publications. Water Resources Research, 2020, 56, .	1.7	5
94	Hydrology of the Carpathian Basin: interactions of climatic drivers and hydrological processes on local and regional scales â€“ HydroCarpath Research. Journal of Hydrology and Hydromechanics, 2020, 68, 128-133.	0.7	5
95	Similarity of empirical copulas of flood peak-volume relationships: a regional case study of North-West Austria. Contributions To Geophysics and Geodesy, 2016, 46, 155-178.	0.2	4
96	Invigorating hydrological research through journal publications. Hydrological Sciences Journal, 2018, 63, 1113-1117.	1.2	4
97	High-Frequency Stable-Isotope Measurements of Evapotranspiration Partitioning in a Maize Field. Water (Switzerland), 2020, 12, 3048.	1.2	4
98	Stepwise prediction of runoff using proxy data in a small agricultural catchment. Journal of Hydrology and Hydromechanics, 2021, 69, 65-75.	0.7	4
99	Thematic Issue on Floods in the Danube basin â€“ processes, patterns, predictions. Journal of Hydrology and Hydromechanics, 2016, 64, 301-303.	0.7	4
100	Fluctuations of Winter Floods in Small Austrian and Ukrainian Catchments. Hydrology, 2022, 9, 38.	1.3	4
101	Comparison of winter design floods between Austrian and Ukrainian Danube River tributaries. Acta Hydrologica Slovaca, 2021, 22, 256-263.	0.1	4
102	Joint editorial: Invigorating hydrological research through journal publications. Hydrology and Earth System Sciences, 2018, 22, 5735-5739.	1.9	3
103	Thematic Issue on Snow Resources and Hydrological Cycle. Journal of Hydrology and Hydromechanics, 2019, 67, 1-3.	0.7	3
104	Partitioning evapotranspiration using stable isotopes and Lagrangian dispersion analysis in a small agricultural catchment. Journal of Hydrology and Hydromechanics, 2020, 68, 134-143.	0.7	3
105	Process-based selection of copula types for flood peak-volume relationships in Northwest Austria: a case study. Contributions To Geophysics and Geodesy, 2016, 46, 245-268.	0.2	2
106	The value of satellite soil moisture and snow cover data for the transfer of hydrological model parameters to ungauged sites. Hydrology and Earth System Sciences, 2022, 26, 1779-1799.	1.9	2
107	Detecting Similarity in Flood Seasonality of Slovak and Austrian Catchments. IOP Conference Series: Materials Science and Engineering, 2019, 471, 022027.	0.3	1
108	Human signatures derived from nighttime lights along the Eastern Alpine river network in Austria and Italy. Proceedings of the International Association of Hydrological Sciences, 0, 373, 131-136.	1.0	1

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109	Joint Editorial Invigorating Hydrological Research through Journal Publications. Journal of Hydrology and Hydromechanics, 2018, 66, 257-260.	0.7	1
110	Incorporating Advanced Scatterometer Surface and Root Zone Soil Moisture Products into the Calibration of a Conceptual Semi-Distributed Hydrological Model. Water (Switzerland), 2021, 13, 3366.	1.2	1
111	Invigorating Hydrological Research through Journal Publications. Journal of Hydrometeorology, 2018, 19, 1713-1719.	0.7	0
112	Joint Editorial: Invigorating Hydrological Research through Journal Publications. Vadose Zone Journal, 2018, 17, 180001ed.	1.3	0
113	Invigorating hydrological research through journal publications. Ecohydrology, 2018, 11, e2016.	1.1	0
114	ENHANCING SIMULATION OF LOW AND HIGH FLOWS USING A TWO-REGIME SWITCHING RAINFALL-RUNOFF MODEL. , 2017, , .		0
115	ASSESSMENT OF THE UNCERTAINTIES OF THE VALUES OF A HYDROLOGIC MODEL PARAMETERS TAKING INTO ACCOUNT TWO CALIBRATION APPROACHES. , 2017, , .		0
116	Joint editorial: Invigorating hydrological research through journal publications. Proceedings of the International Association of Hydrological Sciences, 0, 380, 3-8.	1.0	0