Jan Szolgay

List of Publications by Year
in descending order

74 papers	4,931 citations	304602 22 h-index	149623 56 g-index
79 all docs	79 docs citations	79 times ranked	5153 citing authors

#	Article	IF	Citations
1	Changing climate both increases and decreases European river floods. Nature, 2019, 573, 108-111.	13.7	639
2	A compilation of data on European flash floods. Journal of Hydrology, 2009, 367, 70-78.	2.3	623
3	Changing climate shifts timing of European floods. Science, 2017, 357, 588-590.	6.0	584
4	Twenty-three unsolved problems in hydrology (UPH) â€“ a community perspective. Hydrological Sciences Journal, 2019, 64, 1141-1158.	1.2	474
5	Understanding flood regime changes in Europe: a state-of-the-art assessment. Hydrology and Earth System Sciences, 2014, 18, 2735-2772.	1.9	423
6	At what scales do climate variability and land cover change impact on flooding and low flows?. Hydrological Processes, 2007, 21, 1241-1247.	1.1	313
7	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
8	Seasonal characteristics of flood regimes across the Alpineâ€“Carpathian range. Journal of Hydrology, 2010, 394, 78-89.	2.3	181
9	Flood timescales: Understanding the interplay of climate and catchment processes through comparative hydrology. Water Resources Research, 2012, 48, .	1.7	156
10	Storm type effects on super Clausiusâ€“Clapeyron scaling of intense rainstorm properties with air temperature. Hydrology and Earth System Sciences, 2015, 19, 1753-1766.	1.9	147
11	Bayesian MCMC approach to regional flood frequency analyses involving extraordinary flood events at ungauged sites. Journal of Hydrology, 2010, 394, 101-117.	2.3	129
12	Documentary evidence of past floods in Europe and their utility in flood frequency estimation. Journal of Hydrology, 2014, 517, 963-973.	2.3	116
13	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
14	Dependence between flood peaks and volumes: a case study on climate and hydrological controls. Hydrological Sciences Journal, 2015, 60, 968-984.	1.2	67
15	Region-of-influence approach to a frequency analysis of heavy precipitation in Slovakia. Hydrology and Earth System Sciences, 2008, 12, 825-839.	1.9	64
16	Comparison of mapping approaches of design annual maximum daily precipitation. Atmospheric Research, 2009, 92, 289-307.	1.8	56
17	Comparison of forecasting performance of nonlinear models of hydrological time series. Physics and Chemistry of the Earth, 2006, 31, 1127-1145.	1.2	46
18	Selection of intense rainfall events based on intensity thresholds and lightning data in Switzerland. Hydrology and Earth System Sciences, 2014, 18, 1561-1573.	1.9	44

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19	Identifying barriers for nature-based solutions in flood risk management: An interdisciplinary overview using expert community approach. Journal of Environmental Management, 2022, 310, 114725.	3.8	41
20	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
21	Estimating the effectiveness of crop management on reducing flood risk and sediment transport on hilly agricultural land â€“ A Myjava case study, Slovakia. Catena, 2019, 172, 678-690.	2.2	27
22	A regional comparative analysis of empirical and theoretical flood peak-volume relationships. Journal of Hydrology and Hydromechanics, 2016, 64, 367-381.	0.7	26
23	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
24	An empirical method for estimating future flood risks for flood warnings. Hydrology and Earth System Sciences, 2005, 9, 431-448.	1.9	23
25	Inclusion of historical information in flood frequency analysis using a Bayesian MCMC technique: a case study for the power dam OrlÃk, Czech Republic. Contributions To Geophysics and Geodesy, 2010, 40, .	0.2	21
26	Probabilistic properties of a curve number: A case study for small Polish and Slovak Carpathian Basins. Journal of Mountain Science, 2015, 12, 533-548.	0.8	21
27	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
28	Hybrid Approach to Delineation of Homogeneous Regions for Regional Precipitation Frequency Analysis. Journal of Hydrology and Hydromechanics, 2009, 57, 226-249.	0.7	19
29	Advantages Of A Time Series Analysis Using Wavelet Transform As Compared With A Fourier Analysis. Slovak Journal of Civil Engineering, 2015, 23, 30-36.	0.2	18
30	Estimation of the impact of climate change-induced extreme precipitation events on floods. Contributions To Geophysics and Geodesy, 2015, 45, 173-192.	0.2	18
31	Joint modelling of flood peaks and volumes: A copula application for the Danube River. Journal of Hydrology and Hydromechanics, 2016, 64, 382-392.	0.7	17
32	Wavelet based deseasonalization for modelling and forecasting of daily discharge series considering long range dependence. Journal of Hydrology and Hydromechanics, 2014, 62, 24-32.	0.7	16
33	On the use of the Muskingum method for the simulation of flood wave movements. Slovak Journal of Civil Engineering, 2010, 18, 14-20.	0.2	15
34	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
35	A process-based analysis of the suitability of copula types for peak-volume flood relationships. Proceedings of the International Association of Hydrological Sciences, 0, 370, 183-188.	1.0	13
36	Approaches to state flood recovery funding in Visegrad Group Countries. Environmental Hazards, 2020, 19, 251-267.	1.4	12

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37	On the use of the simple scaling of heavy rainfall in a regional estimation of IDF curves in Slovakia. Journal of Hydrology and Hydromechanics, 2010, 58, .	0.7	12
38	Multi-model climatic water balance prediction in the Zala River Basin (Hungary) based on a modified Budyko framework. Journal of Hydrology and Hydromechanics, 2020, 68, 200-210.	0.7	11
39	Future impacts of land use and climate change on extreme runoff values in selected catchments of Slovakia. Meteorology Hydrology and Water Management, 2019, 7, .	0.4	11
40	The limitations of assessing impacts of land use changes on runoff with a distributed hydrological model: case study of the Hron River. Biologia (Poland), 2009, 64, 589-593.	0.8	7
41	Assessment of The Uncertainties of a Conceptual Hydrologic Model By Using Artificially Generated Flows. Slovak Journal of Civil Engineering, 2012, 20, 35-43.	0.2	7
42	Application of Artificial Neural Networks for estimating index floods. Contributions To Geophysics and Geodesy, 2012, 42, 295-311.	0.2	6
43	Hybrid Forecasting of Daily River Discharges Considering Autoregressive Heteroscedasticity. Slovak Journal of Civil Engineering, 2017, 25, 39-48.	0.2	6
44	Mapping of Gumbel Extreme Value Distribution Parameters for Estimation of Design Precipitation Totals at Ungauged Sites. , 2009, , 129-136.		6
45	Detection of future changes in trends and scaling exponents in extreme short-term rainfall at selected stations in Slovakia. Contributions To Geophysics and Geodesy, 2018, 48, 207-230.	0.2	6
46	Methodology for post-event analysis of flash floods - SvacenickÃ½ Creek case study. Contributions To Geophysics and Geodesy, 2011, 41, 235-250.	0.2	5
47	The potential for land use change to reduce flood risk in mid-sized catchments in the Myjava region of Slovakia. Contributions To Geophysics and Geodesy, 2017, 47, 95-112.	0.2	5
48	Detection of future changes in seasonality in extreme short-term rainfall in selected stations of Slovakia. Contributions To Geophysics and Geodesy, 2017, 47, 133-148.	0.2	5
49	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
50	Analysis of Nitrate Concentrations Using Nonlinear Time Series Models. Journal of Hydrology and Hydromechanics, 2011, 59, .	0.7	5
51	Modelling the Climate Change Impact On Monthly Runoff in Central Slovakia. Procedia Engineering, 2016, 161, 2127-2132.	1.2	4
52	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
53	Impacts of Future Climate Change on Runoff in Selected Catchments of Slovakia. Climate Change Management, 2019, , 279-292.	0.6	4
54	ROUTING OF NUMERICAL WEATHER PREDICTIONS THROUGH A RAINFALL-RUNOFF MODEL. , 2006, , 79-90.		4

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55	Regional flood frequency analysis in Slovakia. , 2012, , .		4
56	Thematic Issue on Floods in the Danube basin â€“ processes, patterns, predictions. Journal of Hydrology and Hydromechanics, 2016, 64, 301-303.	0.7	4
57	Hydrological scenarios of future seasonal runoff distribution in Central Slovakia. IOP Conference Series: Earth and Environmental Science, 2008, 4, 012022.	0.2	3
58	Regional Estimation of Design Flood Discharges for River Restoration in Mountainous Basis of Northern Slovakia. , 2000, , 41-47.		3
59	A Hydrological Modeling Approach for Assessing the Impacts of Climate Change on Runoff Regimes in Slovakia. Water (Switzerland), 2021, 13, 3358.	1.2	3
60	Assessing of IDF curves for hydrological design by simple scaling of 1-day precipitation totals. Slovak Journal of Civil Engineering, 2010, 18, 1-6.	0.2	2
61	A regional look at the selection of a process-oriented model for flood peak/volume relationships. Proceedings of the International Association of Hydrological Sciences, 0, 373, 61-67.	1.0	2
62	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
63	SCENARIOS OF FLOOD REGIME CHANGES DUE TO LAND USE CHANGE IN THE HRON RIVER BASIN. , 2006, , 99-110.		1
64	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
65	Estimating effectiveness of crop management for reduction of soil erosion and runoff. IOP Conference Series: Earth and Environmental Science, 2017, 92, 012017.	0.2	0
66	Combined deterministic â€“ stochastic forecasting of monthly river flows for water management. IOP Conference Series: Earth and Environmental Science, 2017, 92, 012052.	0.2	0
67	Alternative Approaches to a Calibration of Rainfall- Runoff Models for a Flood Frequency Analysis. Acta Silvatica Et Lignaria Hungarica, 2014, 10, 161-174.	0.2	0
68	THE IMPACT OF LAND USE CHANGES ON FLOOD REGIME: A CASE STUDY OF THE MYJAVA CATCHMENT. , 2017, , .		0
69	ASSESSMENT OF THE UNCERTAINTIES OF THE VALUES OF A HYDROLOGIC MODEL PARAMETERS TAKING INTO ACCOUNT TWO CALIBRATION APPROACHES. , 2017, , .		0
70	HYBRID MODEL FOR ONE STEP AHEAD FORECASTING OF DAILY RIVER FLOWS. , 2017, , .		0
71	IMPACTS OF CHANGES IN FOREST COMPOSITION AND CLIMATE CHANGE ON THE RUNOFF PROCESSES IN THE VAH RIVER BASIN IN SLOVAKIA. , 2017, , .		0
72	CONSIDERING HETEROSCEDASCITY IN THE MODELLING AND FORECASTING OF TIME SERIES OF MEAN DAILY DISCHARGES OF THE HRON RIVER AT STATION BREHY IN SLOVAKIA. , 2018, , .		0

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73	IMPACT OF CLIMATE CHANGE ON THE HYDROPOWER POTENTIAL IN THE SELECTED RIVER BASINS IN SLOVAKIA. , 2018, , .		0
74	Variable Parameter Multilinear Muskingum Method: Case Study on the Danube River. Slovak Journal of Civil Engineering, 2018, 26, 56-65.	0.2	0