

Christine Stumpp

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

95
papers

2,213
citations

25
h-index

43
g-index

99
ext. papers

2,778
ext. citations

5.4
avg, IF

5.17
L-index

#	Paper	IF	Citations
95	Twenty-three unsolved problems in hydrology (UPH) – a community perspective. <i>Hydrological Sciences Journal</i> , 2019 , 64, 1141-1158	3.5	259
94	Biodegradation: Updating the concepts of control for microbial cleanup in contaminated aquifers. <i>Environmental Science & Technology</i> , 2015 , 49, 7073-81	10.3	155
93	The Demographics of Water: A Review of Water Ages in the Critical Zone. <i>Reviews of Geophysics</i> , 2019 , 57, 800-834	23.1	101
92	Oil biodegradation. Water droplets in oil are microhabitats for microbial life. <i>Science</i> , 2014 , 345, 673-6	33.3	96
91	Analysis of long-term stable isotopic composition in German precipitation. <i>Journal of Hydrology</i> , 2014 , 517, 351-361	6	90
90	Tracking water pathways in steep hillslopes by $\delta^{18}\text{O}$ depth profiles of soil water. <i>Journal of Hydrology</i> , 2014 , 519, 340-352	6	76
89	Quantification of preferential flow and flow heterogeneities in an unsaturated soil planted with different crops using the environmental isotope $\delta^{18}\text{O}$. <i>Journal of Hydrology</i> , 2010 , 394, 407-415	6	63
88	Inter-laboratory comparison of cryogenic water extraction systems for stable isotope analysis of soil water. <i>Hydrology and Earth System Sciences</i> , 2018 , 22, 3619-3637	5.5	61
87	Environmental isotope ($\delta^{18}\text{O}$) and hydrological data to assess water flow in unsaturated soils planted with different crops: Case study lysimeter station Wagna (Austria). <i>Journal of Hydrology</i> , 2009 , 369, 198-208	6	56
86	Estimating groundwater recharge from water isotope ($\delta^2\text{H}$, $\delta^{18}\text{O}$) depth profiles in the Densu River basin, Ghana. <i>Hydrological Sciences Journal</i> , 2010 , 55, 1405-1416	3.5	54
85	Toward operational methods for the assessment of intrinsic groundwater vulnerability: A review. <i>Critical Reviews in Environmental Science and Technology</i> , 2016 , 46, 827-884	11.1	53
84	Snow and frost: implications for spatiotemporal infiltration patterns – a review. <i>Hydrological Processes</i> , 2016 , 30, 1230-1250	3.3	46
83	Spatial and temporal dynamics of water flow and solute transport in a heterogeneous glacial till: The application of high-resolution profiles of $\delta^{18}\text{O}$ and $\delta^2\text{H}$ in pore waters. <i>Journal of Hydrology</i> , 2012 , 438-439, 203-214	6	45
82	Effects of Land Cover and Fertilization Method on Water Flow and Solute Transport in Five Lysimeters: A Long-Term Study Using Stable Water Isotopes. <i>Vadose Zone Journal</i> , 2012 , 11,	2.7	45
81	Potential impacts of geothermal energy use and storage of heat on groundwater quality, biodiversity, and ecosystem processes. <i>Environmental Earth Sciences</i> , 2016 , 75, 1	2.9	42
80	Application of the environmental isotope $\delta^{18}\text{O}$ to study water flow in unsaturated soils planted with different crops: Case study of a weighable lysimeter from the research field in Neuherberg, Germany. <i>Journal of Hydrology</i> , 2009 , 368, 68-78	6	38
79	Long-term data set analysis of stable isotopic composition in German rivers. <i>Journal of Hydrology</i> , 2017 , 552, 718-731	6	36

78	Modelling of water flow through typical Bavarian soils: 2. Environmental deuterium transport. <i>Hydrological Sciences Journal</i> , 2006 , 51, 298-313	3.5	33
77	Inverse Estimation of Soil Hydraulic and Transport Parameters of Layered Soils from Water Stable Isotope and Lysimeter Data. <i>Vadose Zone Journal</i> , 2018 , 17, 170168	2.7	33
76	Evaluation of pedotransfer functions for estimating soil hydraulic properties of prevalent soils in a catchment of the Bavarian Alps. <i>European Journal of Forest Research</i> , 2009 , 128, 609-620	2.7	32
75	Tracing freshwater nitrate sources in pre-alpine groundwater catchments using environmental tracers. <i>Journal of Hydrology</i> , 2015 , 524, 753-767	6	30
74	Effects of the 2017 drought on isotopic and geochemical gradients in the Adige catchment, Italy. <i>Science of the Total Environment</i> , 2018 , 645, 924-936	10.2	30
73	Differentiated spring behavior under changing hydrological conditions in an alpine karst aquifer. <i>Journal of Hydrology</i> , 2018 , 556, 572-584	6	27
72	Quantification of the heterogeneity of the unsaturated zone based on environmental deuterium observed in lysimeter experiments. <i>Hydrological Sciences Journal</i> , 2007 , 52, 748-762	3.5	26
71	Architects of the underworld: bioturbation by groundwater invertebrates influences aquifer hydraulic properties. <i>Aquatic Sciences</i> , 2019 , 81, 1	2.5	25
70	Sorption properties and behaviour at laboratory scale of selected pharmaceuticals using batch experiments. <i>Journal of Contaminant Hydrology</i> , 2019 , 225, 103500	3.9	24
69	The impact of water table drawdown and drying on subterranean aquatic fauna in in-vitro experiments. <i>PLoS ONE</i> , 2013 , 8, e78502	3.7	24
68	A comparative modeling study of a dual tracer experiment in a large lysimeter under atmospheric conditions. <i>Journal of Hydrology</i> , 2009 , 375, 566-577	6	23
67	Transport and bacterial interactions of three bacterial strains in saturated column experiments. <i>Environmental Science & Technology</i> , 2011 , 45, 2116-23	10.3	22
66	Evaluation of aquifer recharge and vulnerability in an alluvial lowland using environmental tracers. <i>Journal of Hydrology</i> , 2015 , 529, 1657-1668	6	20
65	Correcting Laser-Based Water Stable Isotope Readings Biased by Carrier Gas Changes. <i>Environmental Science & Technology</i> , 2016 , 50, 7074-81	10.3	20
64	Identifying groundwater degradation sources in a Mediterranean coastal area experiencing significant multi-origin stresses. <i>Science of the Total Environment</i> , 2020 , 746, 141203	10.2	20
63	Temporal changes in groundwater quality of the Saloum coastal aquifer. <i>Journal of Hydrology: Regional Studies</i> , 2017 , 9, 163-182	3.6	18
62	The discovery of Lake Hephaestus, the youngest athalassohaline deep-sea formation on Earth. <i>Scientific Reports</i> , 2019 , 9, 1679	4.9	16
61	Effects of reclaimed water discharge in the Maneadero coastal aquifer, Baja California, Mexico. <i>Applied Geochemistry</i> , 2018 , 92, 121-139	3.5	16

60	Application of isotopic tracers as a tool for understanding hydrodynamic behavior of the highly exploited Diass aquifer system (Senegal). <i>Journal of Hydrology</i> , 2014 , 511, 443-459	6	16
59	Modelling of water flow through typical Bavarian soils: 1. Estimation of hydraulic characteristics of the unsaturated zone. <i>Hydrological Sciences Journal</i> , 2006 , 51, 285-297	3.5	16
58	Compound-Specific Stable Isotope Fractionation of Pesticides and Pharmaceuticals in a Mesoscale Aquifer Model. <i>Environmental Science & Technology</i> , 2016 , 50, 5729-39	10.3	16
57	Correcting for Biogenic Gas Matrix Effects on Laser-Based Pore Water-Vapor Stable Isotope Measurements. <i>Vadose Zone Journal</i> , 2018 , 17, 170157	2.7	16
56	Response and recovery of a pristine groundwater ecosystem impacted by toluene contamination - A meso-scale indoor aquifer experiment. <i>Journal of Contaminant Hydrology</i> , 2017 , 207, 17-30	3.9	15
55	Source identification of nitrate contamination in the urban aquifer of Mashhad, Iran. <i>Journal of Hydrology: Regional Studies</i> , 2019 , 25, 100618	3.6	14
54	Response of Transport Parameters and Sediment Microbiota to Water Table Fluctuations in Laboratory Columns. <i>Vadose Zone Journal</i> , 2015 , 14, vzt2014.09.0116	2.7	14
53	Hydrological dynamics of water sources in a Mediterranean lagoon. <i>Hydrology and Earth System Sciences</i> , 2014 , 18, 4825-4837	5.5	14
52	Risk of groundwater contamination widely underestimated because of fast flow into aquifers. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021 , 118,	11.5	14
51	A decision tree tool supporting the assessment of groundwater vulnerability. <i>Environmental Earth Sciences</i> , 2016 , 75, 1	2.9	14
50	Spatiotemporal variation of stable isotopic composition in precipitation: Post-condensational effects in a humid area. <i>Hydrological Processes</i> , 2017 , 31, 3146-3159	3.3	13
49	Spatial and Temporal Variability of Snow Isotopic Composition on Mt. Zugspitze, Bavarian Alps, Germany. <i>Journal of Hydrology and Hydromechanics</i> , 2019 , 67, 49-58	2.1	13
48	Temporal trends in $\delta^{18}O$ composition of precipitation in Germany: insights from time series modelling and trend analysis. <i>Hydrological Processes</i> , 2015 , 29, 2668-2680	3.3	13
47	Spatiotemporal Variations in Snow and Soil Frost: A Review of Measurement Techniques. <i>Hydrology</i> , 2016 , 3, 28	2.8	13
46	Development of a hydrogeological conceptual wetland model in the data-scarce north-eastern region of Kilombero Valley, Tanzania. <i>Hydrogeology Journal</i> , 2018 , 26, 267-284	3.1	13
45	Different depths, different fauna: habitat influences on the distribution of groundwater invertebrates. <i>Hydrobiologia</i> , 2017 , 797, 145-157	2.4	12
44	Groundwater amphipods alter aquifer sediment structure. <i>Hydrological Processes</i> , 2017 , 31, 3452-3454	3.3	12
43	Stable Isotope Approaches in Vadose Zone Research. <i>Vadose Zone Journal</i> , 2018 , 17, 180096	2.7	12

42	Advantages and challenges of using soil water isotopes to assess groundwater recharge dominated by snowmelt at a field study located in Canada. <i>Hydrological Sciences Journal</i> , 2018 , 63, 679-695	3.5	11
41	Changes in Water Flow and Solute Transport Pathways During Long-Term Column Experiments. <i>Vadose Zone Journal</i> , 2013 , 12, vzj2013.01.0032	2.7	11
40	Assessing groundwater recharge and transpiration in a humid northern region dominated by snowmelt using vadose-zone depth profiles. <i>Hydrogeology Journal</i> , 2020 , 28, 2315-2329	3.1	11
39	Diffusive mass exchange of non-reactive substances in dual-porosity porous systems [column experiments under saturated conditions. <i>Hydrological Processes</i> , 2016 , 30, 914-926	3.3	11
38	Representativeness of 2D models to simulate 3D unstable variable density flow in porous media. <i>Journal of Hydrology</i> , 2016 , 542, 541-551	6	11
37	Time variability and uncertainty in the fraction of young water in a small headwater catchment. <i>Hydrology and Earth System Sciences</i> , 2019 , 23, 4333-4347	5.5	10
36	Changes in water table level influence solute transport in uniform porous media. <i>Hydrological Processes</i> , 2015 , 29, 875-888	3.3	9
35	Handling model complexity with parsimony: Numerical analysis of the nitrogen turnover in a controlled aquifer model setup. <i>Journal of Hydrology</i> , 2020 , 584, 124681	6	8
34	Transport and Water Age Dynamics in Soils: A Comparative Study of Spatially Integrated and Spatially Explicit Models. <i>Water Resources Research</i> , 2020 , 56, no	5.4	8
33	Evaluation of the hydrological flow paths in a gravel bed filter modeling a horizontal subsurface flow wetland by using a multi-tracer experiment. <i>Science of the Total Environment</i> , 2018 , 621, 265-272	10.2	8
32	Groundwater depth and topography correlate with vegetation structure of an upland peat swamp, Budderoo Plateau, NSW, Australia. <i>Ecohydrology</i> , 2014 , 7, n/a-n/a	2.5	8
31	Disentangling model complexity in green roof hydrological analysis: A Bayesian perspective. <i>Water Research</i> , 2020 , 182, 115973	12.5	7
30	Column Experiments on Sorption Coefficients and Biodegradation Rates of Selected Pharmaceuticals in Three Aquifer Sediments. <i>Water (Switzerland)</i> , 2020 , 12, 14	3	7
29	Regionalizing soil properties in a catchment of the Bavarian Alps. <i>European Journal of Forest Research</i> , 2009 , 128, 597-608	2.7	7
28	Short-Term Effects on Agricultural Soils Irrigated with Reclaimed Water in Baja California, México. <i>Bulletin of Environmental Contamination and Toxicology</i> , 2019 , 102, 829-835	2.7	6
27	High Resolution Monitoring Above and Below the Groundwater Table Uncovers Small-Scale Hydrochemical Gradients. <i>Environmental Science & Technology</i> , 2017 , 51, 13806-13815	10.3	6
26	Overview of tritium records from precipitation and surface waters in Germany. <i>Hydrological Processes</i> , 2020 , 34, 1489-1493	3.3	6
25	Geologic factors controlling groundwater chemistry in the coastal aquifer system of Douala/Cameroon: implication for groundwater system functioning. <i>Environmental Earth Sciences</i> , 2018 , 77, 1	2.9	5

24	Quantifying the impact of immobile water regions on the fate of nitroaromatic compounds in dual-porosity media. <i>Journal of Contaminant Hydrology</i> , 2016 , 191, 44-53	3.9	5
23	Multi-tracer assessment of seasonal water source changes in coastal water systems along the southeastern coast of Ivory Coast (West Africa). <i>Hydrological Sciences Journal</i> , 2018 , 63, 2124-2145	3.5	5
22	A chemical and microbial characterization of selected mud volcanoes in Trinidad reveals pathogens introduced by surface water and rain water. <i>Science of the Total Environment</i> , 2020 , 707, 136087	10.2	5
21	An operational methodology for determining relevant DRASTIC factors and their relative weights in the assessment of aquifer vulnerability to contamination. <i>Environmental Earth Sciences</i> , 2021 , 80, 1	2.9	5
20	Constraining a Flow Model with Field Measurements to Assess Water Transit Time Through a Vadose Zone. <i>Ground Water</i> , 2021 , 59, 417-427	2.4	5
19	The coupled socio-ecohydrological evolution of river systems: Towards an integrative perspective of river systems in the 21st century. <i>Science of the Total Environment</i> , 2021 , 801, 149619	10.2	4
18	Deforestation reduces the vegetation-accessible water storage in the unsaturated soil and affects catchment travel time distributions and young water fractions		3
17	Sorption and biodegradation parameters of selected pharmaceuticals in laboratory column experiments. <i>Journal of Contaminant Hydrology</i> , 2021 , 236, 103738	3.9	3
16	Reduction of vegetation-accessible water storage capacity after deforestation affects catchment travel time distributions and increases young water fractions in a headwater catchment. <i>Hydrology and Earth System Sciences</i> , 2021 , 25, 4887-4915	5.5	3
15	Analytical transport modelling of metabolites formed in dual-porosity media. <i>Environmental Science and Pollution Research</i> , 2017 , 24, 4447-4456	5.1	2
14	A robust optimization technique for analysis of multi-tracer experiments. <i>Journal of Contaminant Hydrology</i> , 2019 , 224, 103481	3.9	2
13	Partitioning evapotranspiration using water stable isotopes and information from lysimeter experiments. <i>Hydrological Sciences Journal</i> ,	3.5	2
12	Spatial and seasonal variability of groundwater hydrochemistry in the Senegal North Littoral aquifer using multivariate approach. <i>Environmental Earth Sciences</i> , 2016 , 75, 1	2.9	2
11	Application of the D-A-(C) index as a simple tool for microbial-ecological characterization and assessment of groundwater ecosystems—case study of the Mur River Valley, Austria. <i>Osterreichische Wasser- Und Abfallwirtschaft</i> , 1	0.4	2
10	Balancing exploitation and exploration: A novel hybrid global-local optimization strategy for hydrological model calibration. <i>Environmental Modelling and Software</i> , 2022 , 150, 105341	5.2	1
9	Influence of equilibration time, soil texture, and saturation on the accuracy of porewater water isotope assays using the direct H ₂ O(liquid)-H ₂ O(vapor) equilibration method. <i>Journal of Hydrology</i> , 2022 , 127560	6	1
8	Spatial and Annual Variation in Microbial Abundance, Community Composition, and Diversity Associated With Alpine Surface Snow.. <i>Frontiers in Microbiology</i> , 2021 , 12, 781904	5.7	1
7	Dynamics of pathogens and fecal indicators during riverbank filtration in times of high and low river levels.. <i>Water Research</i> , 2021 , 209, 117961	12.5	1

6	Modeling seasonal soil moisture dynamics in gley soils in relation to groundwater table oscillations in eastern Croatia. <i>Catena</i> , 2022 , 211, 105987	5.8	1
5	Using vadose-zone water stable isotope profiles for assessing groundwater recharge under different climatic conditions. <i>Hydrological Sciences Journal</i> , 2021 , 66, 1597-1609	3.5	1
4	Rosalia: an experimental research site to study hydrological processes in a forest catchment. <i>Earth System Science Data</i> , 2021 , 13, 4019-4034	10.5	1
3	Groundwater recharge over the past 100 years: Regional spatiotemporal assessment and climate change impact over the Saguenay-Lac-Saint-Jean region, Canada. <i>Hydrological Processes</i> , 2022 , 36,	3.3	1
2	Green Roofs for domestic wastewater treatment: Experimental and numerical analysis of nitrogen turnover. <i>Journal of Hydrology</i> , 2021 , 603, 127132	6	0
1	Transport von Viren im Grundwasser [Experimentelle Untersuchungen und mathematische Modellierung. <i>Osterreichische Wasser- Und Abfallwirtschaft</i> , 2019 , 71, 454-458	0.4	