Markus Weiler

List of Publications by Year
in descending order

178 papers	11,718 citations	24978 57 h-index	33814 99 g-index
274 all docs	274 docs citations	274 times ranked	9613 citing authors

#	Article	IF	Citations
1	Moving beyond heterogeneity and process complexity: A new vision for watershed hydrology. Water Resources Research, 2007, 43, .	1.7	613
2	Karst water resources in a changing world: Review of hydrological modeling approaches. Reviews of Geophysics, 2014, 52, 218-242.	9.0	610
3	The role of topography on catchment-scale water residence time. Water Resources Research, 2005, 41, .	1.7	571
4	Illuminating hydrological processes at the soilâ€•vegetationâ€•atmosphere interface with water stable isotopes. Reviews of Geophysics, 2016, 54, 674-704.	9.0	342
5	Virtual experiments: a new approach for improving process conceptualization in hillslope hydrology. Journal of Hydrology, 2004, 285, 3-18.	2.3	282
6	How old is streamwater? Open questions in catchment transit time conceptualization, modelling and analysis. Hydrological Processes, 2010, 24, 1745-1754.	1.1	276
7	An experimental tracer study of the role of macropores in infiltration in grassland soils. Hydrological Processes, 2003, 17, 477-493.	1.1	258
8	Forest canopy effects on snow accumulation and ablation: An integrative review of empirical results. Journal of Hydrology, 2010, 392, 219-233.	2.3	245
9	Floods and climate: emerging perspectives for flood risk assessment and management. Natural Hazards and Earth System Sciences, 2014, 14, 1921-1942.	1.5	239
10	Ecohydrological consequences of droughtâ€•and infestationâ€•triggered tree dieâ€•off: insights and hypotheses. Ecohydrology, 2012, 5, 145-159.	1.1	211
11	Inferring flow types from dye patterns in macroporous soils. Geoderma, 2004, 120, 137-153.	2.3	205
12	The Demographics of Water: A Review of Water Ages in the Critical Zone. Reviews of Geophysics, 2019, 57, 800-834.	9.0	197
13	Conceptualizing lateral preferential flow and flow networks and simulating the effects on gauged and ungauged hillslopes. Water Resources Research, 2007, 43, .	1.7	194
14	How does rainfall become runoff? A combined tracer and runoff transfer function approach. Water Resources Research, 2003, 39, .	1.7	191
15	Temporal persistence of spatial patterns in throughfall. Journal of Hydrology, 2005, 314, 263-274.	2.3	187
16	Recovery of trees from drought depends on belowground sink control. Nature Plants, 2016, 2, 16111.	4.7	170
17	The influence of forest and topography on snow accumulation and melt at the watershed-scale. Journal of Hydrology, 2007, 347, 101-115.	2.3	166
18	Integrating tracer experiments with modeling to assess runoff processes and water transit times. Advances in Water Resources, 2007, 30, 824-837.	1.7	158

#	Article	IF	Citations
19	Storage of water on vegetation under simulated rainfall of varying intensity. Advances in Water Resources, 2006, 29, 974-986.	1.7	157
20	Highâ€resolution isotope measurements resolve rapid ecohydrological dynamics at the soilâ€“plant interface. New Phytologist, 2016, 210, 839-849.	3.5	149
21	The master transit time distribution of variable flow systems. Water Resources Research, 2012, 48, .	1.7	135
22	Dissolved and colloidal phosphorus fluxes in forest ecosystemsâ€"an almost blind spot in ecosystem research. Journal of Plant Nutrition and Soil Science, 2016, 179, 425-438.	1.1	125
23	A process based assessment of the potential to reduce flood runoff by land use change. Journal of Hydrology, 2002, 267, 74-79.	2.3	122
24	Testing nutrient flushing hypotheses at the hillslope scale: A virtual experiment approach. Journal of Hydrology, 2006, 319, 339-356.	2.3	116
25	Employing stable isotopes to determine the residence times of soil water and the temporal origin of water taken up by <i>Fagus sylvatica</i> and <i>Picea abies</i> in a temperate forest. New Phytologist, 2018, 219, 1300-1313.	3.5	115
26	Established methods and new opportunities for pore water stable isotope analysis. Hydrological Processes, 2015, 29, 5174-5192.	1.1	103
27	Travel times in the vadose zone: Variability in space and time. Water Resources Research, 2016, 52, 5727-5754.	1.7	103
28	Catchment water storage variation with elevation. Hydrological Processes, 2017, 31, 2000-2015.	1.1	103
29	Continual in situ monitoring of pore water stable isotopes in the subsurface. Hydrology and Earth System Sciences, 2014, 18, 1819-1833.	1.9	99
30	Simulating surface and subsurface initiation of macropore flow. Journal of Hydrology, 2003, 273, 139-154.	2.3	94
31	Dye staining and excavation of a lateral preferential flow network. Hydrology and Earth System Sciences, 2009, 13, 935-944.	1.9	94
32	Are streamflow recession characteristics really characteristic?. Hydrology and Earth System Sciences, 2013, 17, 817-828.	1.9	94
33	Progress in the hydrologic simulation of time variant recharge areas of karst systems â€“ Exemplified at a karst spring in Southern Spain. Advances in Water Resources, 2013, 54, 149-160.	1.7	93
34	Inter-laboratory comparison of cryogenic water extraction systems for stable isotope analysis of soil water. Hydrology and Earth System Sciences, 2018, 22, 3619-3637.	1.9	92
35	Large-scale analysis of changing frequencies of rain-on-snow events with flood-generation potential. Hydrology and Earth System Sciences, 2014, 18, 2695-2709.	1.9	89
36	Tracking water pathways in steep hillslopes by Î´18O depth profiles of soil water. Journal of Hydrology, 2014, 519, 340-352.	2.3	89

#	Article	IF	Citations
37	Measuring and Modeling Stable Isotopes of Mobile and Bulk Soil Water. Vadose Zone Journal, 2018, 17, 1-18.	1.3	84
38	A new approach to model the spatial and temporal variability of recharge to karst aquifers. Hydrology and Earth System Sciences, 2012, 16, 2219-2231.	1.9	82
39	Streamflow sensitivity to drought scenarios in catchments with different geology. Geophysical Research Letters, 2014, 41, 6174-6183.	1.5	82
40	An infiltration model based on flow variability in macropores: development, sensitivity analysis and applications. Journal of Hydrology, 2005, 310, 294-315.	2.3	81
41	Controls of land use and soil structure on water movement: Lessons for pollutant transfer through the unsaturated zone. Journal of Hydrology, 2009, 369, 241-252.	2.3	81
42	Integrated response and transit time distributions of watersheds by combining hydrograph separation and long-term transit time modeling. Hydrology and Earth System Sciences, 2010, 14, 1537-1549.	1.9	81
43	Testing the realism of model structures to identify karst system processes using water quality and quantity signatures. Water Resources Research, 2013, 49, 3345-3358.	1.7	81
44	Estimating flow and transport parameters in the unsaturated zone with pore water stable isotopes. Hydrology and Earth System Sciences, 2015, 19, 2617-2635.	1.9	79
45	Hillslope dynamics modeled with increasing complexity. Journal of Hydrology, 2008, 361, 24-40.	2.3	78
46	HESS Opinions: From response units to functional units: a thermodynamic reinterpretation of the HRU concept to link spatial organization and functioning of intermediate scale catchments. Hydrology and Earth System Sciences, 2014, 18, 4635-4655.	1.9	78
47	A method for <i>in situ</i> monitoring of the isotope composition of tree xylem water using laser spectroscopy. Plant, Cell and Environment, 2016, 39, 2055-2063.	2.8	77
48	Sensitivity of young water fractions to hydro-climatic forcing and landscape properties across 22ÂSwiss catchments. Hydrology and Earth System Sciences, 2018, 22, 3841-3861.	1.9	77
49	Subsurface flow velocities in a hillslope with lateral preferential flow. Water Resources Research, 2009, 45, .	1.7	75
50	A New Approach in Measuring Rainfall Interception by Urban Trees in Coastal British Columbia. Water Quality Research Journal of Canada, 2009, 44, 16-25.	1.2	74
51	A porewater-based stable isotope approach for the investigation of subsurface hydrological processes. Hydrology and Earth System Sciences, 2012, 16, 631-640.	1.9	74
52	Hillslope characteristics as controls of subsurface flow variability. Hydrology and Earth System Sciences, 2012, 16, 3699-3715.	1.9	70
53	Process-based karst modelling to relate hydrodynamic and hydrochemical characteristics to system properties. Hydrology and Earth System Sciences, 2013, 17, 3305-3321.	1.9	70
54	From observation to the quantification of snow processes with a time-lapse camera network. Hydrology and Earth System Sciences, 2013, 17, 1415-1429.	1.9	69

#	Article	IF	Citations
55	Reevaluation of transit time distributions, mean transit times and their relation to catchment topography. Hydrology and Earth System Sciences, 2014, 18, 4751-4771.	1.9	67
56	Conceptualization in catchment modelling: simply learning?. Hydrological Processes, 2008, 22, 2389-2393.	1.1	65
57	Mineral mediated isotope fractionation of soil water. Rapid Communications in Mass Spectrometry, 2017, 31, 269-280.	0.7	65
58	Snow redistribution for the hydrological modeling of alpine catchments. Wiley Interdisciplinary Reviews: Water, 2017, 4, e1232.	2.8	63
59	Largeâ€Scale Assessment of Delayed Groundwater Responses to Drought. Water Resources Research, 2020, 56, e2019WR025441.	1.7	60
60	Do we need a Community Hydrological Model?. Water Resources Research, 2015, 51, 7777-7784.	1.7	57
61	Quantification of localized groundwater inflow into streams using ground-based infrared thermography. Geophysical Research Letters, 2011, 38, n/a-n/a.	1.5	53
62	Intercomparing hillslope hydrological dynamics: Spatioâ€temporal variability and vegetation cover effects. Water Resources Research, 2012, 48, .	1.7	52
63	Spatial and Temporal Dynamics of Hillslopeâ€Scale Soil Moisture Patterns: Characteristic States and Transition Mechanisms. Vadose Zone Journal, 2015, 14, 1-16.	1.3	51
64	Drought reduces water uptake in beech from the drying topsoil, but no compensatory uptake occurs from deeper soil layers. New Phytologist, 2022, 233, 194-206.	3.5	51
65	Continuous in situ measurements of stable isotopes in liquid water. Water Resources Research, 2012, 48, .	1.7	50
66	The influence of ground- and lidar-derived forest structure metrics on snow accumulation and ablation in disturbed forests. Canadian Journal of Forest Research, 2010, 40, 812-821.	0.8	47
67	Form and function in hillslope hydrology: characterization of subsurface flow based on response observations. Hydrology and Earth System Sciences, 2017, 21, 3727-3748.	1.9	47
68	Identification of a karst systemâ€™s intrinsic hydrodynamic parameters: upscaling from single springs to the whole aquifer. Environmental Earth Sciences, 2012, 65, 2377-2389.	1.3	45
69	Seasonal soil moisture patterns: Controlling transit time distributions in a forested headwater catchment. Water Resources Research, 2014, 50, 5270-5289.	1.7	45
70	Spatioâ€temporal controls of snowmelt and runoff generation during rainâ€onâ€snow events in a midâ€latitude mountain catchment. Hydrological Processes, 2015, 29, 3649-3664.	1.1	45
71	Model-aided quantification of dissolved carbon and nitrogen release after windthrow disturbance in an Austrian karst system. Biogeosciences, 2016, 13, 159-174.	1.3	44
72	The hydrologic outcome of a Low Impact Development (LID) site including superposition with streamflow peaks. Urban Water Journal, 2017, 14, 143-159.	1.0	44

#	Article	IF	Citations
73	Quantifying components of the phosphorus cycle in temperate forests. Wiley Interdisciplinary Reviews: Water, 2017, 4, e1243.	2.8	44
74	Measuring snow accumulation and ablation dynamics during rainâ€onâ€snow events: innovative measurement techniques. Hydrological Processes, 2008, 22, 4805-4812.	1.1	43
75	The spatiotemporal variability of runoff generation and groundwater dynamics in a snow-dominated catchment. Journal of Hydrology, 2008, 352, 50-66.	2.3	42
76	Variability of Observed Energy Fluxes during Rain-on-Snow and Clear Sky Snowmelt in a Midlatitude Mountain Environment. Journal of Hydrometeorology, 2014, 15, 1220-1237.	0.7	42
77	New Dimensions of Hillslope Hydrology. Ecological Studies, 2011, , 455-481.	0.4	41
78	Forest harvesting effects on the magnitude and frequency of peak flows can increase with return period. Water Resources Research, 2012, 48, .	1.7	41
79	Spatio-temporal relevance and controls of preferential flow at the landscape scale. Hydrology and Earth System Sciences, 2019, 23, 4869-4889.	1.9	41
80	Taking the pulse of hydrology education. Hydrological Processes, 2007, 21, 1789-1792.	1.1	40
81	Use of distributed snow measurements to test and improve a snowmelt model for predicting the effect of forest clear-cutting. Journal of Hydrology, 2009, 376, 94-106.	2.3	40
82	Storm pulses of dissolved CO₂ in a forested headwater Amazonian stream explored using hydrograph separation. Water Resources Research, 2007, 43, .	1.7	39
83	Spatial distribution of stable water isotopes in alpine snow cover. Hydrology and Earth System Sciences, 2013, 17, 2657-2668.	1.9	39
84	Macropores and preferential flowâ€"a loveâ€hate relationship. Hydrological Processes, 2017, 31, 15-19.	1.1	39
85	Uncertainty of Precipitation Estimates Caused by Sparse Gauging Networks in a Small, Mountainous Watershed. Journal of Hydrologic Engineering - ASCE, 2011, 16, 460-471.	0.8	38
86	Soil Bacterial Community Structure Responses to Precipitation Reduction and Forest Management in Forest Ecosystems across Germany. PLoS ONE, 2015, 10, e0122539.	1.1	38
87	Hydrological mobilization of mercury and dissolved organic carbon in a snow-dominated, forested watershed: Conceptualization and modeling. Journal of Geophysical Research, 2011, 116, .	3.3	37
88	Influences of Macropores on Infiltration into Seasonally Frozen Soil. Vadose Zone Journal, 2019, 18, 1-14.	1.3	37
89	Drought in forest understory ecosystems â€" a novel rainfall reduction experiment. Biogeosciences, 2015, 12, 961-975.	1.3	36
90	Beyond binary baseflow separation: a delayed-flow index for multiple streamflow contributions. Hydrology and Earth System Sciences, 2020, 24, 849-867.	1.9	36

#	Article	IF	Citations
91	Interactions and connectivity between runoff generation processes of different spatial scales. Hydrological Processes, 2014, 28, 1916-1930.	1.1	33
92	Dominant controls of transpiration along a hillslope transect inferred from ecohydrological measurements and thermodynamic limits. Hydrology and Earth System Sciences, 2016, 20, 2063-2083.	1.9	33
93	Temporal dynamics of tree xylem water isotopes: in situ monitoring and modeling. Biogeosciences, 2021, 18, 4603-4627.	1.3	33
94	Your work is my boundary condition!. Journal of Hydrology, 2019, 571, 235-243.	2.3	33
95	Model-based estimation of pesticides and transformation products and their export pathways in a headwater catchment. Hydrology and Earth System Sciences, 2013, 17, 5213-5228.	1.9	32
96	Influence of forest and shrub canopies on precipitation partitioning and isotopic signatures. Hydrological Processes, 2017, 31, 4282-4296.	1.1	32
97	Tree-, stand- and site-specific controls on landscape-scale patterns of transpiration. Hydrology and Earth System Sciences, 2018, 22, 13-30.	1.9	32
98	It takes a community to raise a hydrologist: the Modular Curriculum for Hydrologic Advancement (MOCHA). Hydrology and Earth System Sciences, 2012, 16, 3405-3418.	1.9	31
99	Potential of a lowâ€cost sensor network to understand the spatial and temporal dynamics of a mountain snow cover. Water Resources Research, 2014, 50, 2533-2550.	1.7	31
100	Magic componentsâ€"why quantifying rain, snowmelt, and icemelt in river discharge is not easy. Hydrological Processes, 2018, 32, 160-166.	1.1	31
101	Technical note: Representing glacier geometry changes in a semi-distributed hydrological model. Hydrology and Earth System Sciences, 2018, 22, 2211-2224.	1.9	31
102	Two-dimensional assessment of solute transport in shallow waters with thermal imaging and heated water. Advances in Water Resources, 2012, 43, 67-75.	1.7	28
103	Does drought alter hydrological functions in forest soils?. Hydrology and Earth System Sciences, 2016, 20, 1301-1317.	1.9	28
104	Correcting Laser-Based Water Stable Isotope Readings Biased by Carrier Gas Changes. Environmental Science & Technology, 2016, 50, 7074-7081.	4.6	28
105	Assessing differences in tree and stand structure following beetle infestation using lidar data. Canadian Journal of Remote Sensing, 2009, 35, 497-508.	1.1	27
106	Quantifying sensitivity to droughts â€" an experimental modeling approach. Hydrology and Earth System Sciences, 2015, 19, 1371-1384.	1.9	27
107	Correcting for Biogenic Gas Matrix Effects on Laserâ€Based Pore Waterâ€Vapor Stable Isotope Measurements. Vadose Zone Journal, 2018, 17, 1-10.	1.3	27
108	Monitoring ephemeral, intermittent and perennial streamflow: a dataset from 182 sites in the Attert catchment, Luxembourg. Earth System Science Data, 2019, 11, 1363-1374.	3.7	27

#	Article	IF	Citations
109	Effect of the spatial distribution of physical aquifer properties on modelled water table depth and stream discharge in a headwater catchment. Hydrology and Earth System Sciences, 2010, 14, 1179-1194.	1.9	26
110	Is there a superior conceptual groundwater model structure for baseflow simulation?. Hydrological Processes, 2015, 29, 1301-1313.	1.1	26
111	A New Low-Cost, Stand-Alone Sensor System for Snow Monitoring. Journal of Atmospheric and Oceanic Technology, 2010, 27, 1973-1978.	0.5	25
112	The role of experimental work in hydrological sciences â€“ insights from a community survey. Hydrological Sciences Journal, 0, , 1-4.	1.2	25
113	Sensitivity of a data-driven soil water balance model to estimate summer evapotranspiration along a forest chronosequence. Hydrology and Earth System Sciences, 2011, 15, 3461-3473.	1.9	24
114	Influence of distributed flow losses and gains on the estimation of transient storage parameters from stream tracer experiments. Journal of Hydrology, 2011, 396, 277-291.	2.3	24
115	Historical tracking of nitrate in contrasting vineyards using water isotopes and nitrate depth profiles. Agriculture, Ecosystems and Environment, 2016, 222, 185-192.	2.5	24
116	Viability of motes for hydrological measurement. Water Resources Research, 2009, 45, .	1.7	23
117	Piezometric response in zones of a watershed with lateral preferential flow as a firstâ€order control on subsurface flow. Hydrological Processes, 2010, 24, 2237-2247.	1.1	23
118	Diel discharge cycles explained through viscosity fluctuations in riparian inflow. Water Resources Research, 2016, 52, 8744-8755.	1.7	23
119	Explicit simulations of stream networks to guide hydrological modelling in ungauged basins. Hydrology and Earth System Sciences, 2010, 14, 1435-1448.	1.9	21
120	Hierarchical climate-driven dynamics of the active channel length in temporary streams. Scientific Reports, 2021, 11, 21503.	1.6	21
121	Physico-chemical characteristics affect the spatial distribution of pesticide and transformation product loss to an agricultural brook. Science of the Total Environment, 2015, 532, 733-743.	3.9	20
122	Foliar P- but not N resorption efficiency depends on the P-concentration and the N:P ratio in trees of temperate forests. Trees - Structure and Function, 2018, 32, 1443-1455.	0.9	20
123	Model-based quantification of runoff generation processes at high spatial and temporal resolution. Environmental Earth Sciences, 2016, 75, 1.	1.3	19
124	Soil moisture: variable in space but redundant in time. Hydrology and Earth System Sciences, 2020, 24, 2633-2653.	1.9	19
125	Spatial controls on groundwater response dynamics in a snowmelt-dominated montane catchment. Hydrology and Earth System Sciences, 2014, 18, 1835-1856.	1.9	18
126	The impact of landscape evolution on soil physics: evolution of soil physical and hydraulic properties along two chronosequences of proglacial moraines. Earth System Science Data, 2020, 12, 3189-3204.	3.7	17

#	Article	IF	Citations
127	Internal catchment process simulation in a snowâ€dominated basin: performance evaluation with spatiotemporally variable runoff generation and groundwater dynamics. Hydrological Processes, 2011, 25, 3187-3203.	1.1	16
128	Analysis and mapping of present and future drought conditions over Greek areas with different climate conditions. Theoretical and Applied Climatology, 2018, 131, 259-270.	1.3	16
129	Nitrate sinks and sources as controls of spatio-temporal water quality dynamics in an agricultural headwater catchment. Hydrology and Earth System Sciences, 2016, 20, 843-857.	1.9	16
130	Intraspecific differences in responses to rainshelter-induced drought and competition of Fagus sylvatica L. across Germany. Forest Ecology and Management, 2014, 330, 283-293.	1.4	15
131	Multitracer assessment of wetland succession: Effects on conservative and nonconservative transport processes. Water Resources Research, 2012, 48, .	1.7	14
132	Phosphorus Fluxes in a Temperate Forested Watershed: Canopy Leaching, Runoff Sources, and In-Stream Transformation. Frontiers in Forests and Global Change, 2019, 2, .	1.0	14
133	Historical glacier outlines from digitized topographic maps of the Swiss Alps. Earth System Science Data, 2018, 10, 805-814.	3.7	14
134	Predicting probabilities of streamflow intermittency across a temperate mesoscale catchment. Hydrology and Earth System Sciences, 2020, 24, 5453-5472.	1.9	14
135	Groundwater controls on colloidal transport in forest stream waters. Science of the Total Environment, 2020, 717, 134638.	3.9	13
136	Field observations of soil hydrological flow path evolution over 10Âmillennia. Hydrology and Earth System Sciences, 2020, 24, 3271-3288.	1.9	13
137	Benchmarking of Two Dualâ€Permeability Models under Different Land Use and Land Cover. Vadose Zone Journal, 2010, 9, 226-237.	1.3	12
138	Evapotranspiration and land cover transitions: longâ€term watershed response in recovering forested ecosystems. Ecohydrology, 2012, 5, 721-732.	1.1	12
139	Exploration of remotely sensed forest structure and ultrasonic range sensor metrics to improve empirical snow models. Hydrological Processes, 2014, 28, 4433-4448.	1.1	12
140	The Seasonal Origins of Streamwater in Switzerland. Geophysical Research Letters, 2019, 46, 10425-10434.	1.5	12
141	Technical note: Diagnostic efficiency â€“ specific evaluation of model performance. Hydrology and Earth System Sciences, 2021, 25, 2187-2198.	1.9	12
142	Technical note: Unresolved aspects of the direct vapor equilibration method for stable isotope analysis (<i>Î´</i>¹⁸O,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 unifying protocols through empirical and mathematical scrutiny. Hydrology and Earth System Sciences, 2021, 25, 5219-5235.	1.9	11
143	Characterising hillslopeâ€“stream connectivity with a joint event analysis of stream and groundwater levels. Hydrology and Earth System Sciences, 2020, 24, 5713-5744.	1.9	11
144	A sprinkling experiment to quantify celerityâ€“velocity differences at the hillslope scale. Hydrology and Earth System Sciences, 2017, 21, 5891-5910.	1.9	10

#	Article	IF	Citations
145	Diel fluctuations of viscosity-driven riparian inflow affect streamflow DOC concentration. Biogeosciences, 2018, 15, 2177-2188.	1.3	10
146	Continuous, near-real-time observations of water stable isotope ratios during rainfall and throughfall events. Hydrology and Earth System Sciences, 2019, 23, 3007-3019.	1.9	10
147	Longâ€Term Changes in Runoff Generation Mechanisms for Two Proglacial Areas in the Swiss Alps II: Subsurface Flow. Water Resources Research, 2021, 57, .	1.7	10
148	Comment on â€œAn assessment of the tracerâ€based approach to quantifying groundwater contributions to streamflowâ€•by J. P. Jones et al.. Water Resources Research, 2007, 43, .	1.7	9
149	A tracerâ€based simulation approach to quantify seasonal dynamics of surfaceâ€groundwater interactions in the Pantanal wetland. Hydrological Processes, 2016, 30, 2590-2602.	1.1	8
150	Incentives for field hydrology and data sharing: collaboration and compensation: reply to â€œA need for incentivizing field hydrology, especially in an era of open dataâ€. Hydrological Sciences Journal, 2018, 63, 1266-1268.	1.2	8
151	Application of a laser-based spectrometer for continuous in situ measurements of stable isotopes of soil CO₂ in calcareous and acidic soils. Soil, 2019, 5, 49-62.	2.2	8
152	Subsurface flow and phosphorus dynamics in beech forest hillslopes during sprinkling experiments: how fast is phosphorus replenished?. Biogeosciences, 2021, 18, 1009-1027.	1.3	8
153	SOIL DEVELOPMENT AND PROPERTIES | Water Storage and Movement. , 2004, , 1253-1260.		7
154	Stress testing as complement to climate scenarios: recharge scenarios to quantify streamflow drought sensitivity. Proceedings of the International Association of Hydrological Sciences, 0, 383, 43-50.	1.0	7
155	Coupled Ground- and Space-Based Assessment of Regional Inundation Dynamics to Assess Impact of Local and Upstream Changes on Evaporation in Tropical Wetlands. Remote Sensing, 2015, 7, 9769-9795.	1.8	6
156	A distributed soil moisture, temperature and infiltrometer dataset for permeable pavements and green spaces. Earth System Science Data, 2020, 12, 501-517.	3.7	6
157	A toolkit for groundwater mean residence time interpretation with gaseous tracers. Computers and Geosciences, 2013, 61, 116-125.	2.0	5
158	Inundation and groundwater dynamics for quantification of evaporative water loss in tropical wetlands. Hydrology and Earth System Sciences, 2014, 18, 4407-4422.	1.9	5
159	Estimating water balance components of tropical wetland lakes in the Pantanal dry season, Brazil. Hydrological Sciences Journal, 2014, 59, 2158-2172.	1.2	5
160	The effect of soil moisture, soil particle size, litter layer and carbonic anhydrase on the oxygen isotopic composition of soilâ€released <scp>CO₂</scp>. European Journal of Soil Science, 2015, 66, 566-576.	1.8	5
161	Water research in Germany: from the reconstruction of the Roman Rhine to a risk assessment for aquatic neophytes. Environmental Earth Sciences, 2017, 76, 1.	1.3	5
162	â€˜Teflon Basinâ€™ or Not? A High-Elevation Catchment Transit Time Modeling Approach. Hydrology, 2019, 6, 92.	1.3	5

#	Article	IF	Citations
163	Xylem sap phosphorus sampling using microdialysisâ€”a non-destructive high sampling frequency method tested under laboratory and field conditions. Tree Physiology, 2020, 40, 1623-1638.	1.4	5
164	Potential of a Gravityâ€Driven Film Flow Model to Predict Infiltration in a Catchment for Diverse Soil and Land Cover Combinations. Water Resources Research, 2021, 57, e2019WR026988.	1.7	5
165	Runoff reaction from extreme rainfall events on natural hillslopes: a data set from 132 large-scale sprinkling experiments in south-western Germany. Earth System Science Data, 2020, 12, 245-255.	3.7	5
166	On the risk of obtaining misleading results by pooling streamflow data for trend analyses. Water Resources Research, 2012, 48, .	1.7	4
167	The Maimai <scp>M8</scp> experimental catchment database: Forty years of processâ€based research on steep, wet hillslopes. Hydrological Processes, 2021, 35, e14112.	1.1	4
168	Diel patterns in stream nitrate concentration produced by in-stream processes. Biogeosciences, 2021, 18, 4705-4715.	1.3	4
169	Field-Based Observation of Hydrological Processes. , 2011, , 339-350.		2
170	Model Based Estimation of a Natural Water Balance as Reference for Planning in Urban Areas. Green Energy and Technology, 2019, , 953-957.	0.4	2
171	Fluxes from soil moisture measurements (FluSM v1.0): a data-driven water balance framework for permeable pavements. Geoscientific Model Development, 2021, 14, 2127-2142.	1.3	2
172	Hydrological Modeling of an Alpine Dolomite Karst System. Environmental Earth Sciences, 2010, , 223-229.	0.1	2
173	Identification of groundwater mean transit times of precipitation and riverbank infiltration by twoâ€component lumped parameter models. Hydrological Processes, 2019, 33, 3098-3118.	1.1	1
174	Influence of sample preparation procedures on water stable isotopes in plant organs using the waterâ€vapour equilibrium method. Ecohydrology, 2022, 15, .	1.1	1
175	Event controls on intermittent streamflow in a temperate climate. Hydrology and Earth System Sciences, 2022, 26, 2671-2696.	1.9	1
176	Corrigendum to "Spatial controls on groundwater response dynamics in a snowmelt-dominated montane catchment" published in Hydrol. Earth Syst. Sci., 18, 1835â€“1856, 2014. Hydrology and Earth System Sciences, 2014, 18, 2087-2087.	1.9	0
177	Why and when it is useful to publish and share inconclusive results and failures: reply to â€œReporting negative results to stimulate experimental hydrologyâ€. Hydrological Sciences Journal, 2018, 63, 1273-1274.	1.2	0
178	The CH-IRP data set: a decade of fortnightly data on <i>Î´</i>²H and <i>Î´</i>¹⁸O in streamflow and precipitation in Switzerland. Earth System Science Data, 2020, 12, 3057-3066.	3.7	0