Ilja van Meerveld

List of Publications by Year
in descending order

108	5,134	109321	95266
papers	citations	35 h-index	68 g-index

156	156	156	5165
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Threshold relations in subsurface stormflow: 2. The fill and spill hypothesis. Water Resources Research, 2006, 42, .	4.2	477
2	Twenty-three unsolved problems in hydrology (UPH) â€“ a community perspective. Hydrological Sciences Journal, 2019, 64, 1141-1158.	2.6	474
3	The influence of soil moisture on threshold runoff generation processes in an alpine headwater catchment. Hydrology and Earth System Sciences, 2011, 15, 689-702.	4.9	319
4	On the interrelations between topography, soil depth, soil moisture, transpiration rates and species distribution at the hillslope scale. Advances in Water Resources, 2006, 29, 293-310.	3.8	312
5	Threshold relations in subsurface stormflow: 1. A 147-storm analysis of the Panola hillslope. Water Resources Research, 2006, 42, .	4.2	305
6	The role of lateral pipe flow in hillslope runoff response: an intercomparison of non-linear hillslope response. Journal of Hydrology, 2005, 311, 117-133.	5.4	173
7	Effect of bedrock permeability on subsurface stormflow and the water balance of a trenched hillslope at the Panola Mountain Research Watershed, Georgia, USA. Hydrological Processes, 2007, 21, 750-769.	2.6	153
8	Consistency between hydrological models and field observations: linking processes at the hillslope scale to hydrological responses at the watershed scale. Hydrological Processes, 2009, 23, 311-319.	2.6	128
9	A versatile index to characterize hysteresis between hydrological variables at the runoff event timescale. Hydrological Processes, 2016, 30, 1449-1466.	2.6	105
10	Seasonal changes in runoff generation in a small forested mountain catchment. Hydrological Processes, 2015, 29, 2027-2042.	2.6	95
11	Upper and lower benchmarks in hydrological modelling. Hydrological Processes, 2018, 32, 1120-1125.	2.6	85
12	Hillslope dynamics modeled with increasing complexity. Journal of Hydrology, 2008, 361, 24-40.	5.4	78
13	An Overview of Temporary Stream Hydrology in Canada. Canadian Water Resources Journal, 2012, 37, 279-310.	1.2	75
14	Hydrological response of an Alpine catchment to rainfall and snowmelt events. Journal of Hydrology, 2016, 537, 382-397.	5.4	75
15	Topographic controls on shallow groundwater levels in a steep, prealpine catchment: When are the TWI assumptions valid?. Water Resources Research, 2014, 50, 6067-6080.	4.2	72
16	From hillslope to stream: methods to investigate subsurface connectivity. Wiley Interdisciplinary Reviews: Water, 2015, 2, 177-198.	6.5	72
17	Toward catchment hydroâ€biogeochemical theories. Wiley Interdisciplinary Reviews: Water, 2021, 8, e1495.	6.5	65
18	Global transpiration data from sap flow measurements: the SAPFLUXNET database. Earth System Science Data, 2021, 13, 2607-2649.	9.9	65

#	Article	IF	Citations
19	Virtual Staff Gauges for Crowd-Based Stream Level Observations. Frontiers in Earth Science, 2019, 7, .	1.8	63
20	Hillslopeâ€“riparianâ€stream connectivity and flow directions at the Panola Mountain Research Watershed. Hydrological Processes, 2015, 29, 3556-3574.	2.6	62
21	Rebuilding soil hydrological functioning after swidden agriculture in eastern Madagascar. Agriculture, Ecosystems and Environment, 2017, 239, 101-111.	5.3	62
22	Assessment of multi-frequency electromagnetic induction for determining soil moisture patterns at the hillslope scale. Journal of Hydrology, 2009, 368, 56-67.	5.4	59
23	A virtual experiment on the effects of evaporation and intensity smoothing by canopy interception on subsurface stormflow generation. Journal of Hydrology, 2006, 327, 352-364.	5.4	57
24	Effect of raindrop splash and transversal width on soil erosion: Laboratory flume experiments and analysis with the Hairsineâ€“Rose model. Journal of Hydrology, 2010, 395, 117-132.	5.4	56
25	Expansion and contraction of the flowing stream network alter hillslope flowpath lengths and the shape of the travel time distribution. Hydrology and Earth System Sciences, 2019, 23, 4825-4834.	4.9	54
26	Spatial variation in transient water table responses: differences between an upper and lower hillslope zone. Hydrological Processes, 2011, 25, 3866-3877.	2.6	52
27	Spatial variability in the isotopic composition of rainfall in a small headwater catchment and its effect on hydrograph separation. Journal of Hydrology, 2017, 547, 755-769.	5.4	52
28	Double funnelling in a mature coastal British Columbia forest: spatial patterns of stemflow after infiltration. Hydrological Processes, 2016, 30, 4185-4201.	2.6	49
29	Measurement and modeling of rainfall interception by two differently aged secondary forests in upland eastern Madagascar. Journal of Hydrology, 2017, 545, 212-225.	5.4	49
30	Comment to â€œSpatial correlation of soil moisture in small catchments and its relationship to dominant spatial hydrological processes, Journal of Hydrology 286: 113â€“134â€. Journal of Hydrology, 2005, 303, 307-312.	5.4	44
31	Fillâ€andâ€Spill: A Process Description of Runoff Generation at the Scale of the Beholder. Water Resources Research, 2021, 57, e2020WR027514.	4.2	43
32	The Essential Role of the Lagg in Raised Bog Function and Restoration: A Review. Wetlands, 2011, 31, 613-622.	1.5	42
33	Quantification of subsurface hydrologic connectivity in four headwater catchments using graph theory. Science of the Total Environment, 2019, 646, 1265-1280.	8.0	42
34	Reduced raindrop-impact driven soil erosion by infiltration. Journal of Hydrology, 2007, 342, 331-335.	5.4	40
35	Influence of sediment settling velocity on mechanistic soil erosion modeling. Water Resources Research, 2008, 44, .	4.2	37
36	Spatioâ€temporal variability in contributions to low flows in the high Alpine Poschiavino catchment. Hydrological Processes, 2018, 32, 3938-3953.	2.6	35

#	Article	IF	Citations
37	Soil physical characteristics of a degraded tropical grassland and a â€˜reforestâ€™: Implications for runoff generation. Geoderma, 2019, 333, 163-177.	5.1	35
38	Effects of soil and vegetation development on surface hydrological properties of moraines in the Swiss Alps. Catena, 2020, 187, 104353.	5.0	35
39	Information content of stream level class data for hydrological model calibration. Hydrology and Earth System Sciences, 2017, 21, 4895-4905.	4.9	34
40	From Points to Patterns: Using Groundwater Time Series Clustering to Investigate Subsurface Hydrological Connectivity and Runoff Source Area Dynamics. Water Resources Research, 2019, 55, 5784-5806.	4.2	34
41	A Low-Cost, Multi-Sensor System to Monitor Temporary Stream Dynamics in Mountainous Headwater Catchments. Sensors, 2019, 19, 4645.	3.8	34
42	Crowd-Based Observations of Riverine Macroplastic Pollution. Frontiers in Earth Science, 2020, 8, .	1.8	34
43	Testing the Waters: Mobile Apps for Crowdsourced Streamflow Data. Eos, 2018, 99, .	0.1	34
44	Tracing the Water Sources of Trees and Streams: Isotopic Analysis in a Small Pre-Alpine Catchment. Procedia Environmental Sciences, 2013, 19, 106-112.	1.4	33
45	Is groundwater response timing in a preâ€alpine catchment controlled more by topography or by rainfall?. Hydrological Processes, 2016, 30, 1036-1051.	2.6	33
46	Topographic Controls on Deep Groundwater Contributions to Mountain Headwater Streams and Sensitivity to Available Recharge. Canadian Water Resources Journal, 2012, 37, 349-371.	1.2	32
47	Gypsies in the palace: experimentalist's view on the use of 3â€D physicsâ€based simulation of hillslope hydrological response. Hydrological Processes, 2010, 24, 3878-3893.	2.6	29
48	Transpiration and stomatal conductance in a young secondary tropical montane forest: contrasts between native trees and invasive understorey shrubs. Tree Physiology, 2018, 38, 1053-1070.	3.1	29
49	The CrowdWater game: AÂplayful way to improve the accuracy of crowdsourced water level class data. PLoS ONE, 2019, 14, e0222579.	2.5	29
50	Aqua temporaria incognita. Hydrological Processes, 2020, 34, 5704-5711.	2.6	27
51	Groundwater similarity across a watershed derived from timeâ€warped and flowâ€corrected time series. Water Resources Research, 2017, 53, 3921-3940.	4.2	26
52	The role of experimental work in hydrological sciences â€“ insights from a community survey. Hydrological Sciences Journal, 0, , 1-4.	2.6	25
53	Spatial variability in the isotopic composition of water in small catchments and its effect on hydrograph separation. Wiley Interdisciplinary Reviews: Water, 2019, 6, e1367.	6.5	24
54	Forest regeneration can positively contribute to local hydrological ecosystem services: Implications for forest landscape restoration. Journal of Applied Ecology, 2021, 58, 755-765.	4.0	24

#	Article	IF	Citations
55	A reference data set of hillslope rainfallâ€runoff response, Panola Mountain Research Watershed, United States. Water Resources Research, 2008, 44, .	4.2	23
56	Hydrological change modeling: Challenges and opportunities. Hydrological Processes, 2016, 30, 4966-4971.	2.6	21
57	Value of uncertain streamflow observations for hydrological modelling. Hydrology and Earth System Sciences, 2018, 22, 5243-5257.	4.9	21
58	Value of Crowdâ€Based Water Level Class Observations for Hydrological Model Calibration. Water Resources Research, 2020, 56, e2019WR026108.	4.2	21
59	Quality and timing of crowdâ€based water level class observations. Hydrological Processes, 2020, 34, 4365-4378.	2.6	21
60	Examining the public health implications of drinking waterâ€“related behaviours and perceptions: A faceâ€toâ€face exploratory survey of residents in eight coastal communities in British Columbia and Nova Scotia. Canadian Geographer / Geographie Canadien, 2015, 59, 111-125.	1.5	19
61	How can we model subsurface stormflow at the catchment scale if we cannot measure it?. Hydrological Processes, 2019, 33, 1378-1385.	2.6	19
62	Accuracy of crowdsourced streamflow and stream level class estimates. Hydrological Sciences Journal, 2020, 65, 823-841.	2.6	19
63	Regional and local patterns in depth to water table, hydrochemistry and peat properties of bogs and their laggs in coastal British Columbia. Hydrology and Earth System Sciences, 2013, 17, 3421-3435.	4.9	18
64	Controls on sediment production from an unpaved resource road in a Pacific maritime watershed. Water Resources Research, 2014, 50, 4803-4820.	4.2	18
65	Runoff response and sediment yield of a landslide-affected fire-climax grassland micro-catchment (Leyte, the Philippines) before and after passage of typhoon Haiyan. Journal of Hydrology, 2018, 565, 524-537.	5.4	18
66	Spatial variability in specific discharge and streamwater chemistry during low flows: Results from snapshot sampling campaigns in eleven Swiss catchments. Hydrological Processes, 2019, 33, 2847-2866.	2.6	17
67	When should stream water be sampled to be most informative for event-based, multi-criteria model calibration?. Hydrology Research, 2017, 48, 1566-1584.	2.7	16
68	Key gaps in soil monitoring during forest restoration in Colombia. Restoration Ecology, 2021, 29, e13391.	2.9	16
69	Teaching Research Methods Courses in Human Geography: Critical Reflections. Journal of Geography in Higher Education, 2010, 34, 155-171.	2.6	14
70	Effects of Reforestation of a Degraded Imperata Grassland on Dominant Flow Pathways and Streamflow Responses in Leyte, the Philippines. Water Resources Research, 2019, 55, 4128-4148.	4.2	14
71	Runoff generation in a pre-alpine catchment: A discussion between a tracer and a shallow groundwater hydrologist. Cuadernos De Investigacion Geografica, 2018, 44, 429-452.	1.1	14
72	Do stream water solute concentrations reflect when connectivity occurs in a small, pre-Alpine headwater catchment?. Hydrology and Earth System Sciences, 2020, 24, 3381-3398.	4.9	13

#	Article	IF	Citations
73	A model-based assessment of the potential use of compound-specific stable isotope analysis in river monitoring of diffuse pesticide pollution. Hydrology and Earth System Sciences, 2013, 17, 4505-4524.	4.9	12
74	Validation and Over-Parameterizationâ€"Experiences from Hydrological Modeling. Simulation Foundations, Methods and Applications, 2019, , 811-834.	0.1	12
75	The evolving perceptual model of streamflow generation at the Panola Mountain Research Watershed. Hydrological Processes, 2021, 35, e14127.	2.6	12
76	Effect of DEM-smoothing and -aggregation on topographically-based flow directions and catchment boundaries. Journal of Hydrology, 2021, 602, 126717.	5.4	12
77	Typhoon-induced changes in rainfall interception loss from a tropical multi-species â€˜reforestâ€™. Journal of Hydrology, 2019, 568, 658-675.	5.4	11
78	Spatiotemporal variability in hydrochemistry of shallow groundwater in a small preâ€alpine catchment: The importance of landscape elements. Hydrological Processes, 2019, 33, 2502-2522.	2.6	10
79	Water budget and runâ€off response of a tropical multispecies â€œreforestâ€•and effects of typhoon disturbance. Ecohydrology, 2019, 12, e2055.	2.4	10
80	Intermittent and Perennial Streamflow Regime Characteristics in the Okanagan. Canadian Water Resources Journal, 2012, 37, 391-414.	1.2	9
81	ZeroFlow: A PUB (Prediction in Ungauged Basins) Workshop on Temporary Streams Summary of Workshop Discussions and Future Directions. Canadian Water Resources Journal, 2012, 37, 425-431.	1.2	9
82	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.	2.6	8
83	What is the best time to take stream isotope samples for event-based model calibration?. Journal of Hydrology, 2019, 577, 123950.	5.4	8
84	Soil water- and overland flow dynamics in a tropical catchment subject to long-term slash-and-burn agriculture. Journal of Hydrology, 2020, 582, 124287.	5.4	8
85	Key drivers of pyrogenic carbon redistribution during a simulated rainfall event. Biogeosciences, 2021, 18, 1105-1126.	3.3	8
86	Impacts of Rural Water Diversions on Prairie Streamflow. Canadian Water Resources Journal, 2012, 37, 415-424.	1.2	7
87	Open Science: Open Data, Open Models, â€¦and Open Publications?. Water Resources Research, 2021, 57, e2020WR029480.	4.2	7
88	Training citizen scientists through an online game developed for data quality control. Geoscience Communication, 2020, 3, 109-126.	0.9	7
89	Ressi experimental catchment: Ecohydrological research in the Italian <scp>preâ€Alps</scp>. Hydrological Processes, 2021, 35, e14095.	2.6	6
90	Dung beetles as hydrological engineers: effects of tunnelling on soil infiltration. Ecological Entomology, 2022, 47, 84-94.	2.2	6

#	Article	IF	Citations
91	Longâ€Term Changes in Runoff Generation Mechanisms for Two Proglacial Areas in the Swiss Alps I: Overland Flow. Water Resources Research, 2021, 57, e2021WR030221.	4.2	6
92	A multiâ€scale study of the dominant catchment characteristics impacting lowâ€flow metrics. Hydrological Processes, 2022, 36, .	2.6	6
93	Effects of Spatial Variability in the Groundwater Isotopic Composition on Hydrograph Separation Results for a Preâ€Alpine Headwater Catchment. Water Resources Research, 2020, 56, e2019WR026855.	4.2	4
94	Hydrological trends and the evolution of catchment research in the Alptal valley, central Switzerland. Hydrological Processes, 2021, 35, e14113.	2.6	4
95	Laggs can develop and be restored inside a raised bog. Wetlands Ecology and Management, 2018, 26, 635-649.	1.5	3
96	Organic Carbon Stocks in all Pools Following Land Cover Change in the Rainforest of Madagascar. , 2018, , 25-37.		3
97	Effect of Observation Errors on the Timing of the Most Informative Isotope Samples for Event-Based Model Calibration. Hydrology, 2018, 5, 4.	3.0	3
98	How do geomorphic characteristics affect the source of tree water uptake in restored river floodplains?. Ecohydrology, 2022, 15, .	2.4	3
99	Erosion of soils due to rainfall impact â€“ an interpolation method. Ecohydrology, 2012, 5, 575-579.	2.4	2
100	Classification of vegetative lagg types and hydrogeomorphic lagg forms in bogs of coastal British Columbia, Canada. Canadian Geographer / Geographie Canadien, 2016, 60, 123-134.	1.5	2
101	Introduction to Special Issue: Prediction in Ungauged Basins (PUB) Workshop on Temporary Streams. Canadian Water Resources Journal, 2012, 37, 275-278.	1.2	1
102	Celebrating hydrologic science: The â€œ<scp>S</scp>cience is <scp>E</scp>ssentialâ€•collection. Water Resources Research, 2017, 53, 5204-5208.	4.2	1
103	Representation of Biâ€Directional Fluxes Between Groundwater and Surface Water in a Bucketâ€Type Hydrological Model. Water Resources Research, 2021, 57, e2020WR028835.	4.2	1
104	A vision for Water Resources Research. Water Resources Research, 2017, 53, 4530-4532.	4.2	0
105	Appreciation for Water Resources Research Reviewers. Water Resources Research, 2018, 54, 7114-7137.	4.2	0
106	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.	2.6	0
107	Thank You to Our 2019 Reviewers. Water Resources Research, 2020, 56, e2020WR027684.	4.2	0
108	Thank You to Our 2020 Reviewers. Water Resources Research, 2021, 57, e2021WR029938.	4.2	0