

# Hilary K Mcmillan

## List of Publications by Year in descending order

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Version: 2024-02-01

50  
papers

3,600  
citations

168829

31  
h-index

242451

47  
g-index

62  
all docs

62  
docs citations

62  
times ranked

4268  
citing authors

#	ARTICLE	IF	CITATIONS
1	Impacts of observational uncertainty on analysis and modelling of hydrological processes: Preface. <i>Hydrological Processes</i> , 2022, 36, .	1.1	5
2	A taxonomy of hydrological processes and watershed function. <i>Hydrological Processes</i> , 2022, 36, .	1.1	5
3	A signature-based approach to quantify soil moisture dynamics under contrasting land uses. <i>Hydrological Processes</i> , 2022, 36, .	1.1	4
4	Large Scale Evaluation of Relationships Between Hydrologic Signatures and Processes. <i>Water Resources Research</i> , 2022, 58, .	1.7	8
5	A review of hydrologic signatures and their applications. <i>Wiley Interdisciplinary Reviews: Water</i> , 2021, 8, .	2.8	55
6	A soil moisture monitoring network to assess controls on runoff generation during atmospheric river events. <i>Hydrological Processes</i> , 2021, 35, .	1.1	7
7	Including Regional Knowledge Improves Baseflow Signature Predictions in Large Sample Hydrology. <i>Water Resources Research</i> , 2021, 57, e2020WR028354.	1.7	30
8	TOSSH: A Toolbox for Streamflow Signatures in Hydrology. <i>Environmental Modelling and Software</i> , 2021, 138, 104983.	1.9	26
9	Tracing sources of stormflow and groundwater recharge in an urban, semi-arid watershed using stable isotopes. <i>Journal of Hydrology: Regional Studies</i> , 2021, 34, 100806.	1.0	9
10	Preface: Linking landscape organisation and hydrological functioning: from hypotheses and observations to concepts, models and understanding. <i>Hydrology and Earth System Sciences</i> , 2021, 25, 5277-5285.	1.9	3
11	Linking hydrologic signatures to hydrologic processes: A review. <i>Hydrological Processes</i> , 2020, 34, 1393-1409.	1.1	82
12	Deriving hydrological signatures from soil moisture data. <i>Hydrological Processes</i> , 2020, 34, 1410-1427.	1.1	18
13	Information content of snow hydrological signatures based on streamflow, precipitation and air temperature. <i>Hydrological Processes</i> , 2020, 34, 2763-2779.	1.1	8
14	A Decade of Water Storage Changes Across the Contiguous United States From GPS and Satellite Gravity. <i>Geophysical Research Letters</i> , 2019, 46, 13006-13015.	1.5	41
15	Impact of Stage Measurement Errors on Streamflow Uncertainty. <i>Water Resources Research</i> , 2018, 54, 1952-1976.	1.7	50
16	Hydrological data uncertainty and its implications. <i>Wiley Interdisciplinary Reviews: Water</i> , 2018, 5, e1319.	2.8	89
17	A Comparison of Methods for Streamflow Uncertainty Estimation. <i>Water Resources Research</i> , 2018, 54, 7149-7176.	1.7	108
18	How uncertainty analysis of streamflow data can reduce costs and promote robust decisions in water management applications. <i>Water Resources Research</i> , 2017, 53, 5220-5228.	1.7	60

#	ARTICLE	IF	CITATIONS
19	Five guidelines for selecting hydrological signatures. <i>Hydrological Processes</i> , 2017, 31, 4757-4761.	1.1	68
20	Modeling surface water-groundwater interaction in New Zealand: Model development and application. <i>Hydrological Processes</i> , 2017, 31, 925-934.	1.1	17
21	mizuRoute version 1: a river network routing tool for a continental domain water resources applications. <i>Geoscientific Model Development</i> , 2016, 9, 2223-2238.	1.3	42
22	Nonparametric catchment clustering using the data depth function. <i>Hydrological Sciences Journal</i> , 2016, 61, 2649-2667.	1.2	21
23	Validation of a national hydrological model. <i>Journal of Hydrology</i> , 2016, 541, 800-815.	2.3	49
24	Influence of soil and climate on root zone storage capacity. <i>Water Resources Research</i> , 2016, 52, 2009-2024.	1.7	62
25	Uncertainty in hydrological signatures for gauged and ungauged catchments. <i>Water Resources Research</i> , 2016, 52, 1847-1865.	1.7	104
26	Robust informational entropy-based descriptors of flow in catchment hydrology. <i>Hydrological Sciences Journal</i> , 2016, 61, 1-18.	1.2	38
27	Field measurement of groundwater recharge under irrigation in Canterbury, New Zealand, using drainage lysimeters. <i>Agricultural Water Management</i> , 2016, 166, 17-32.	2.4	29
28	Accelerating advances in continental domain hydrologic modeling. <i>Water Resources Research</i> , 2015, 51, 10078-10091.	1.7	102
29	Rating curve estimation under epistemic uncertainty. <i>Hydrological Processes</i> , 2015, 29, 1873-1882.	1.1	69
30	Uncertainty in hydrological signatures. <i>Hydrology and Earth System Sciences</i> , 2015, 19, 3951-3968.	1.9	127
31	Characteristics and controls of variability in soil moisture and groundwater in a headwater catchment. <i>Hydrology and Earth System Sciences</i> , 2015, 19, 1767-1786.	1.9	36
32	Spatial variability of hydrological processes and model structure diagnostics in a 50 km <sup>2</sup> catchment. <i>Hydrological Processes</i> , 2014, 28, 4896-4913.	1.1	64
33	Use of an entropy-based metric in multiobjective calibration to improve model performance. <i>Water Resources Research</i> , 2014, 50, 8066-8083.	1.7	37
34	“Panta Rhei” Everything Flows: Change in hydrology and society – The IAHS Scientific Decade 2013–2022. <i>Hydrological Sciences Journal</i> , 2013, 58, 1256-1275.	1.2	569
35	Use of the data depth function to differentiate between case of interpolation and extrapolation in hydrological model prediction. <i>Journal of Hydrology</i> , 2013, 477, 213-228.	2.3	16
36	Operational hydrological data assimilation with the recursive ensemble Kalman filter. <i>Hydrology and Earth System Sciences</i> , 2013, 17, 21-38.	1.9	92

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37	Do time-variable tracers aid the evaluation of hydrological model structure? A multimodel approach. <i>Water Resources Research</i> , 2012, 48, .	1.7	86
38	Benchmarking observational uncertainties for hydrology: rainfall, river discharge and water quality. <i>Hydrological Processes</i> , 2012, 26, 4078-4111.	1.1	345
39	Effect of spatial variability and seasonality in soil moisture on drainage thresholds and fluxes in a conceptual hydrological model. <i>Hydrological Processes</i> , 2012, 26, 2838-2844.	1.1	14
40	Rainfall uncertainty in hydrological modelling: An evaluation of multiplicative error models. <i>Journal of Hydrology</i> , 2011, 400, 83-94.	2.3	195
41	Hydrological field data from a modeller's perspective: Part 1. Diagnostic tests for model structure. <i>Hydrological Processes</i> , 2011, 25, 511-522.	1.1	121
42	Hydrological field data from a modeller's perspective: Part 2: process-based evaluation of model hypotheses. <i>Hydrological Processes</i> , 2011, 25, 523-543.	1.1	103
43	Impacts of uncertain river flow data on rainfall-runoff model calibration and discharge predictions. <i>Hydrological Processes</i> , 2010, 24, 1270-1284.	1.1	136
44	Rainfall-runoff model calibration using informal likelihood measures within a Markov chain Monte Carlo sampling scheme. <i>Water Resources Research</i> , 2009, 45, .	1.7	60
45	End-to-end flood risk assessment: A coupled model cascade with uncertainty estimation. <i>Water Resources Research</i> , 2008, 44, .	1.7	51
46	Reduced complexity strategies for modelling urban floodplain inundation. <i>Geomorphology</i> , 2007, 90, 226-243.	1.1	111
47	Constraining dynamic TOPMODEL responses for imprecise water table information using fuzzy rule based performance measures. <i>Journal of Hydrology</i> , 2004, 291, 254-277.	2.3	158
48	Scientific debate of Panta Rhei research – how to advance our knowledge of changes in hydrology and society?. <i>Hydrological Sciences Journal</i> , 0, , 1-3.	1.2	7
49	Panta Rhei 2013–2015: global perspectives on hydrology, society and change. <i>Hydrological Sciences Journal</i> , 0, , 1-18.	1.2	53
50	Experimental Coupling of TOPMODEL with the National Water Model: Effects of Coupling Interface Complexity on Model Performance. <i>Journal of the American Water Resources Association</i> , 0, , .	1.0	1