Mark A Thyer

List of Publications by Year
in descending order

54	3,331	218677	182427
papers	citations	26 h-index	51 g-index

69	69	69	2974
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Understanding predictive uncertainty in hydrologic modeling: The challenge of identifying input and structural errors. Water Resources Research, 2010, 46, .	4.2	589
2	Critical evaluation of parameter consistency and predictive uncertainty in hydrological modeling: A case study using Bayesian total error analysis. Water Resources Research, 2009, 45, .	4.2	293
3	Towards a Bayesian total error analysis of conceptual rainfall-runoff models: Characterising model error using storm-dependent parameters. Journal of Hydrology, 2006, 331, 161-177.	5.4	283
4	Natural hazards in Australia: droughts. Climatic Change, 2016, 139, 37-54.	3.6	174
5	Toward a reliable decomposition of predictive uncertainty in hydrological modeling: Characterizing rainfall errors using conditional simulation. Water Resources Research, 2011, 47, .	4.2	172
6	Probabilistic optimization for conceptual rainfall-runoff models: A comparison of the shuffled complex evolution and simulated annealing algorithms. Water Resources Research, 1999, 35, 767-773.	4.2	138
7	A strategy for diagnosing and interpreting hydrological model nonstationarity. Water Resources Research, 2014, 50, 5090-5113.	4.2	134
8	Comparison of joint versus postprocessor approaches for hydrological uncertainty estimation accounting for error autocorrelation and heteroscedasticity. Water Resources Research, 2014, 50, 2350-2375.	4.2	130
9	A global analysis of the asymmetric effect of ENSO on extreme precipitation. Journal of Hydrology, 2015, 530, 51-65.	5.4	117
10	Improving probabilistic prediction of daily streamflow by identifying <scp>P</scp>areto optimal approaches for modeling heteroscedastic residual errors. Water Resources Research, 2017, 53, 2199-2239.	4.2	101
11	Pitfalls and improvements in the joint inference of heteroscedasticity and autocorrelation in hydrological model calibration. Water Resources Research, 2013, 49, 4518-4524.	4.2	96
12	Goulburn River experimental catchment data set. Water Resources Research, 2007, 43, .	4.2	83
13	Modeling long-term persistence in hydroclimatic time series using a hidden state Markov Model. Water Resources Research, 2000, 36, 3301-3310.	4.2	77
14	Quantifying parameter uncertainty in stochastic models using the Boxâ€“Cox transformation. Journal of Hydrology, 2002, 265, 246-257.	5.4	74
15	There are no hydrological monsters, just models and observations with large uncertainties!. Hydrological Sciences Journal, 2010, 55, 980-991.	2.6	68
16	A general regional frequency analysis framework for quantifying local-scale climate effects: A case study of ENSO effects on Southeast Queensland rainfall. Journal of Hydrology, 2014, 512, 53-68.	5.4	66
17	Diagnosing a distributed hydrologic model for two high-elevation forested catchments based on detailed stand- and basin-scale data. Water Resources Research, 2004, 40, .	4.2	53
18	A hidden Markov model for modelling long-term persistence in multi-site rainfall time series 1. Model calibration using a Bayesian approach. Journal of Hydrology, 2003, 275, 12-26.	5.4	52

#	Article	IF	Citations
19	A hidden Markov model for modelling long-term persistence in multi-site rainfall time series. 2. Real data analysis. Journal of Hydrology, 2003, 275, 27-48.	5.4	42
20	Climateâ€informed stochastic hydrological modeling: Incorporating decadalâ€scale variability using paleo data. Water Resources Research, 2011, 47, .	4.2	38
21	Controlling rainwater storage as a system: An opportunity to reduce urban flood peaks for rare, long duration storms. Environmental Modelling and Software, 2019, 111, 34-41.	4.5	36
22	Evaluating post-processing approaches for monthly and seasonal streamflow forecasts. Hydrology and Earth System Sciences, 2018, 22, 6257-6278.	4.9	34
23	A limitedâ€memory acceleration strategy for MCMC sampling in hierarchical Bayesian calibration of hydrological models. Water Resources Research, 2010, 46, .	4.2	32
24	An efficient causative event-based approach for deriving the annual flood frequency distribution. Journal of Hydrology, 2014, 510, 412-423.	5.4	32
25	State updating and calibration period selection to improve dynamic monthly streamflow forecasts for an environmental flow management application. Hydrology and Earth System Sciences, 2018, 22, 871-887.	4.9	30
26	A general Bayesian framework for calibrating and evaluating stochastic models of annual multi-site hydrological data. Journal of Hydrology, 2007, 340, 129-148.	5.4	28
27	Real-Time, Smart Rainwater Storage Systems: Potential Solution to Mitigate Urban Flooding. Water (Switzerland), 2019, 11, 2428.	2.7	28
28	Parameter estimation and model identification for stochastic models of annual hydrological data: Is the observed record long enough?. Journal of Hydrology, 2006, 330, 313-328.	5.4	27
29	The ENSOâ€“Precipitation Teleconnection and Its Modulation by the Interdecadal Pacific Oscillation. Journal of Climate, 2015, 28, 4753-4773.	3.2	25
30	A simplified approach to produce probabilistic hydrological model predictions. Environmental Modelling and Software, 2018, 109, 306-314.	4.5	25
31	A comprehensive and systematic evaluation framework for a parsimonious daily rainfall field model. Journal of Hydrology, 2018, 556, 1123-1138.	5.4	24
32	Climate driver informed shortâ€term drought risk evaluation. Water Resources Research, 2013, 49, 2317-2326.	4.2	23
33	Optimising the design and real-time operation of systems of distributed stormwater storages to reduce urban flooding at the catchment scale. Journal of Hydrology, 2021, 602, 126787.	5.4	22
34	The Importance of Spatiotemporal Variability in Irrigation Inputs for Hydrological Modeling of Irrigated Catchments. Water Resources Research, 2018, 54, 6792-6821.	4.2	21
35	Multiâ€temporal Hydrological Residual Error Modeling for Seamless Subseasonal Streamflow Forecasting. Water Resources Research, 2020, 56, e2019WR026979.	4.2	21
36	Influential point detection diagnostics in the context of hydrological model calibration. Journal of Hydrology, 2015, 527, 1161-1172.	5.4	15

#	Article	IF	Citations
37	The open source RFortran library for accessing R from Fortran, with applications in environmental modelling. Environmental Modelling and Software, 2011, 26, 219-234.	4.5	14
38	Revealing Hidden Climate Indices from the Occurrence of Hydrologic Extremes. Water Resources Research, 2019, 55, 7662-7681.	4.2	14
39	Benefits of Explicit Treatment of Zero Flows in Probabilistic Hydrological Modeling of Ephemeral Catchments. Water Resources Research, 2019, 55, 11035-11060.	4.2	13
40	A robust approach for calibrating a daily rainfall-runoff model to monthly streamflow data. Journal of Hydrology, 2020, 591, 125129.	5.4	12
41	Avulsion triggering by El NiÃ±oâ€“Southern Oscillation and tectonic forcing: The case of the tropical Magdalena River, Colombia. Bulletin of the Geological Society of America, 2017, 129, 1300-1313.	3.3	11
42	Incorporating seasonality into event-based joint probability methods for predicting flood frequency: A hybrid causative event approach. Journal of Hydrology, 2016, 533, 40-52.	5.4	10
43	Achieving high-quality probabilistic predictions from hydrological models calibrated with a wide range of objective functions. Journal of Hydrology, 2021, 603, 126578.	5.4	9
44	A hybrid framework for quantifying the influence of data in hydrological model calibration. Journal of Hydrology, 2018, 561, 211-222.	5.4	7
45	Improving the Reliability of Subâ€Seasonal Forecasts of High and Low Flows by Using a Flowâ€Dependent Nonparametric Model. Water Resources Research, 2021, 57, e2020WR029317.	4.2	7
46	Estimating Extreme Spatial Rainfall Intensities. Journal of Hydrologic Engineering - ASCE, 2016, 21, 04015074.	1.9	6
47	A generalised approach for identifying influential data in hydrological modelling. Environmental Modelling and Software, 2019, 111, 231-247.	4.5	5
48	Predicting wildfire induced changes to runoff: A review and synthesis of modeling approaches. Wiley Interdisciplinary Reviews: Water, 2022, 9, .	6.5	5
49	A virtual hydrological framework for evaluation of stochastic rainfall models. Hydrology and Earth System Sciences, 2019, 23, 4783-4801.	4.9	4
50	A Hidden Climate Indices Modeling Framework for Multivariable Spaceâ€Time Data. Water Resources Research, 2022, 58, .	4.2	4
51	Incorporating Long-Term Climate Variability into a Short-Timescale Rainfall Model Using a Hidden State Markov Model. Australian Journal of Water Resources, 2002, 6, 63-70.	2.7	1
52	Scrutinizing Parameter Consistency and Predictive Uncertainty in Rainfall-Runoff Models Using Bayesian Total Error Analysis. , 2008, , .		1
53	Investigating the Impact of Predictive Uncertainty in Rainfall-Runoff Modelling on Storage Reliability Estimates Using Bayesian Total Error Analysis. , 2008, , .		0
54	Short-Term Drought Risk Dynamics: The Impact of Multi-Decadal Climate Variability and Water Supply System Properties. , 2008, , .		0