

Andrew W. Western

List of Publications by Year in descending order

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Version: 2024-02-01

115
papers

9,260
citations

70961

41
h-index

40881

93
g-index

115
all docs

115
docs citations

115
times ranked

8110
citing authors

#	ARTICLE	IF	CITATIONS
1	Enhancing the Accuracy and Temporal Transferability of Irrigated Cropping Field Classification Using Optical Remote Sensing Imagery. <i>Remote Sensing</i> , 2022, 14, 997.	1.8	3
2	Reconstructing climate trends adds skills to seasonal reference crop evapotranspiration forecasting. <i>Hydrology and Earth System Sciences</i> , 2022, 26, 941-954.	1.9	0
3	Towards an ensemble-based short-term flood forecasting using an event-based flood model-incorporating catchment-average estimates of soil moisture. <i>Journal of Hydrology</i> , 2021, 593, 125828.	2.3	9
4	Improving the representation of cropland sites in the Community Land Model (CLM) version 5.0. <i>Geoscientific Model Development</i> , 2021, 14, 573-601.	1.3	18
5	Which multispectral indices robustly measure canopy nitrogen across seasons: Lessons from an irrigated pasture crop. <i>Computers and Electronics in Agriculture</i> , 2021, 182, 106000.	3.7	15
6	Understanding the Impact of Soil Clay Mineralogy on the Adsorption Behavior of Zinc. <i>International Journal of Environmental Research</i> , 2021, 15, 559-569.	1.1	6
7	A Bayesian approach to understanding the key factors influencing temporal variability in stream water quality – a case study in the Great Barrier Reef catchments. <i>Hydrology and Earth System Sciences</i> , 2021, 25, 2663-2683.	1.9	15
8	A comprehensive assessment framework for attributing trends in streamflow and groundwater storage to climatic and anthropogenic changes: A case study in the typical semi-arid catchments of southern India. <i>Hydrological Processes</i> , 2021, 35, e14305.	1.1	3
9	Impacts of stormwater infiltration on downslope soil moisture and tree water use. <i>Environmental Research Letters</i> , 2021, 16, 104014.	2.2	7
10	Towards more realistic runoff projections by removing limits on simulated soil moisture deficit. <i>Journal of Hydrology</i> , 2021, 600, 126505.	2.3	8
11	A multi-model approach to assessing the impacts of catchment characteristics on spatial water quality in the Great Barrier Reef catchments. <i>Environmental Pollution</i> , 2021, 288, 117337.	3.7	16
12	Performance of a wheat yield prediction model and factors influencing the performance: A review and meta-analysis. <i>Agricultural Systems</i> , 2021, 194, 103278.	3.2	23
13	Healthy waterways and ecologically sustainable cities in <sc>Beijing&Tianjin&Hebei</sc> urban agglomeration (northern China): Challenges and future directions. <i>Wiley Interdisciplinary Reviews: Water</i> , 2021, 8, e1500.	2.8	18
14	The politicisation of science in the Murray-Darling Basin, Australia: discussion of ‘Scientific integrity, public policy and water governance’™. <i>Australian Journal of Water Resources</i> , 2021, 25, 141-158.	1.6	5
15	A New Drought Index for Soil Moisture Monitoring Based on MPDI-NDVI Trapezoid Space Using MODIS Data. <i>Remote Sensing</i> , 2021, 13, 122.	1.8	19
16	Justin Costelloe: a champion of arid-zone water research. <i>Hydrogeology Journal</i> , 2020, 28, 37-41.	0.9	4
17	The evolution of policy instruments used in water, land and environmental governances in Victoria, Australia from 1860–2016. <i>Environmental Science and Policy</i> , 2020, 112, 348-360.	2.4	10
18	A simulation-based approach to assess the power of trend detection in high- and low-frequency water quality records. <i>Environmental Monitoring and Assessment</i> , 2020, 192, 628.	1.3	4

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19	Sorption and transport behavior of zinc in the soil; Implications for stormwater management. <i>Geoderma</i> , 2020, 367, 114243.	2.3	14
20	A data-based predictive model for spatiotemporal variability in stream water quality. <i>Hydrology and Earth System Sciences</i> , 2020, 24, 827-847.	1.9	26
21	Many Commonly Used Rainfall-Runoff Models Lack Long, Slow Dynamics: Implications for Runoff Projections. <i>Water Resources Research</i> , 2020, 56, e2019WR025286.	1.7	54
22	Understanding Policy Instruments as Rules of Interaction in Social-Ecological System Frameworks. <i>Geography and Sustainability</i> , 2020, 1, 295-303.	1.9	3
23	Equifinality and Flux Mapping: A New Approach to Model Evaluation and Process Representation Under Uncertainty. <i>Water Resources Research</i> , 2019, 55, 8922-8941.	1.7	57
24	Towards estimating root-zone soil moisture using surface multispectral and thermal sensing: A spectral and hydrometeorological dataset from the Dookie experiment site, Victoria, Australia. <i>Hydrological Processes</i> , 2019, 33, 2037-2043.	1.1	1
25	Key Factors Affecting Temporal Variability in Stream Water Quality. <i>Water Resources Research</i> , 2019, 55, 112-129.	1.7	72
26	An evaluation of a methodology for seasonal soil water forecasting for Australian dry land cropping systems. <i>Agricultural and Forest Meteorology</i> , 2018, 253-254, 161-175.	1.9	11
27	Improved Rainfall-Runoff Calibration for Drying Climate: Choice of Objective Function. <i>Water Resources Research</i> , 2018, 54, 3392-3408.	1.7	68
28	Key factors influencing differences in stream water quality across space. <i>Wiley Interdisciplinary Reviews: Water</i> , 2018, 5, e1260.	2.8	173
29	A framework for incorporating social processes in hydrological models. <i>Current Opinion in Environmental Sustainability</i> , 2018, 33, 42-50.	3.1	18
30	Simulating Runoff Under Changing Climatic Conditions: A Framework for Model Improvement. <i>Water Resources Research</i> , 2018, 54, 9812-9832.	1.7	58
31	Predicting groundwater recharge for varying land cover and climate conditions – a global meta-study. <i>Hydrology and Earth System Sciences</i> , 2018, 22, 2689-2703.	1.9	89
32	Characterisation of spatial variability in water quality in the Great Barrier Reef catchments using multivariate statistical analysis. <i>Marine Pollution Bulletin</i> , 2018, 137, 137-151.	2.3	32
33	What Are the Key Catchment Characteristics Affecting Spatial Differences in Riverine Water Quality?. <i>Water Resources Research</i> , 2018, 54, 7252-7272.	1.7	58
34	Understanding ourselves and the environment in which we live. <i>Current Opinion in Environmental Sustainability</i> , 2018, 33, 161-166.	3.1	7
35	Statistical Interpolation of Groundwater Hydrographs. <i>Water Resources Research</i> , 2018, 54, 4663-4680.	1.7	22
36	Evolution of the societal value of water resources for economic development versus environmental sustainability in Australia from 1843 to 2011. <i>Global Environmental Change</i> , 2017, 42, 82-92.	3.6	65

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37	Multiple runoff processes and multiple thresholds control agricultural runoff generation. <i>Hydrology and Earth System Sciences</i> , 2016, 20, 4525-4545.	1.9	55
38	Ensemble forecasting of short-term system scale irrigation demands using real-time flow data and numerical weather predictions. <i>Water Resources Research</i> , 2016, 52, 4801-4822.	1.7	19
39	On the structural limitations of recursive digital filters for base flow estimation. <i>Water Resources Research</i> , 2016, 52, 4745-4764.	1.7	20
40	A synthetic study to evaluate the utility of hydrological signatures for calibrating a base flow separation filter. <i>Water Resources Research</i> , 2016, 52, 6526-6540.	1.7	13
41	Can we manage groundwater? A method to determine the quantitative testability of groundwater management plans. <i>Water Resources Research</i> , 2016, 52, 4863-4882.	1.7	27
42	Predicting shifts in rainfall-runoff partitioning during multiyear drought: Roles of dry period and catchment characteristics. <i>Water Resources Research</i> , 2016, 52, 9290-9305.	1.7	86
43	Simulating runoff under changing climatic conditions: Revisiting an apparent deficiency of conceptual rainfall-runoff models. <i>Water Resources Research</i> , 2016, 52, 1820-1846.	1.7	136
44	Bias in streamflow projections due to climate-induced shifts in catchment response. <i>Geophysical Research Letters</i> , 2016, 43, 1574-1581.	1.5	68
45	Dual assimilation of satellite soil moisture to improve streamflow prediction in data-scarce catchments. <i>Water Resources Research</i> , 2016, 52, 5357-5375.	1.7	49
46	Determining vertical leakage from the Great Artesian Basin, Australia, through up-scaling field estimates of phreatic evapotranspiration. <i>Journal of Hydrology</i> , 2015, 529, 1079-1094.	2.3	4
47	The influence of multiyear drought on the annual rainfall-runoff relationship: An Australian perspective. <i>Water Resources Research</i> , 2015, 51, 2444-2463.	1.7	158
48	Estimating aquifer properties using groundwater hydrograph modelling. <i>Hydrological Processes</i> , 2015, 29, 5424-5437.	1.1	16
49	Including the dynamic relationship between climatic variables and leaf area index in a hydrological model to improve streamflow prediction under a changing climate. <i>Hydrology and Earth System Sciences</i> , 2015, 19, 2821-2836.	1.9	20
50	Improving operational flood ensemble prediction by the assimilation of satellite soil moisture: comparison between lumped and semi-distributed schemes. <i>Hydrology and Earth System Sciences</i> , 2015, 19, 1659-1676.	1.9	98
51	Evolution of the human-water relationships in the Heihe River basin in the past 2000 years. <i>Hydrology and Earth System Sciences</i> , 2015, 19, 2261-2273.	1.9	36
52	Groundwater surface mapping informs sources of catchment baseflow. <i>Hydrology and Earth System Sciences</i> , 2015, 19, 1599-1613.	1.9	21
53	Evolution of newspaper coverage of water issues in Australia during 1843-2011. <i>Ambio</i> , 2015, 44, 319-331.	2.8	43
54	The effect of year-to-year variability of leaf area index on Variable Infiltration Capacity model performance and simulation of runoff. <i>Advances in Water Resources</i> , 2015, 83, 310-322.	1.7	46

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55	Assimilation of stream discharge for flood forecasting: Updating a semidistributed model with an integrated data assimilation scheme. <i>Water Resources Research</i> , 2015, 51, 3238-3258.	1.7	34
56	Multivariate time series modeling of short-term system scale irrigation demand. <i>Journal of Hydrology</i> , 2015, 531, 1003-1019.	2.3	8
57	Comparison of hourly and daily reference crop evapotranspiration equations across seasons and climate zones in Australia. <i>Agricultural Water Management</i> , 2015, 148, 84-96.	2.4	25
58	Multiple hydrological attractors under stochastic daily forcing: 2. Can multiple attractors emerge?. <i>Water Resources Research</i> , 2014, 50, 3010-3029.	1.7	13
59	Multiple hydrological attractors under stochastic daily forcing: 1. Can multiple attractors exist?. <i>Water Resources Research</i> , 2014, 50, 2993-3009.	1.7	14
60	The impacts of assimilating satellite soil moisture into a rainfall-runoff model in a semi-arid catchment. <i>Journal of Hydrology</i> , 2014, 519, 2763-2774.	2.3	72
61	Leaf Area Index Variation for Crop, Pasture, and Tree in Response to Climatic Variation in the Goulburn-Broken Catchment, Australia. <i>Journal of Hydrometeorology</i> , 2014, 15, 1592-1606.	0.7	29
62	A catchment study of sources and sinks of nutrients and sediments in south-east Australia. <i>Journal of Hydrology</i> , 2014, 515, 166-179.	2.3	17
63	Uncertainties around modelling of steady-state phreatic evaporation with field soil profiles of ^{18}O and chloride. <i>Journal of Hydrology</i> , 2014, 511, 229-241.	2.3	11
64	Forecasting daily reference evapotranspiration for Australia using numerical weather prediction outputs. <i>Agricultural and Forest Meteorology</i> , 2014, 194, 50-63.	1.9	82
65	An integrated error parameter estimation and lag-aware data assimilation scheme for real-time flood forecasting. <i>Journal of Hydrology</i> , 2014, 519, 2722-2736.	2.3	42
66	Nonlinear time-series modeling of unconfined groundwater head. <i>Water Resources Research</i> , 2014, 50, 8330-8355.	1.7	53
67	Stand-alone error characterisation of microwave satellite soil moisture using a Fourier method. <i>Remote Sensing of Environment</i> , 2014, 154, 115-126.	4.6	32
68	Relating Trends in Streamflow to Anthropogenic Influences: A Case Study of Himayat Sagar Catchment, India. <i>Water Resources Management</i> , 2014, 28, 1579-1595.	1.9	20
69	Beyond triple collocation: Applications to soil moisture monitoring. <i>Journal of Geophysical Research D: Atmospheres</i> , 2014, 119, 6419-6439.	1.2	97
70	Using uncertainty analysis and groundwater measurements to improve the confidence of river water balance estimates. <i>Journal of Hydrology</i> , 2013, 503, 209-221.	2.3	7
71	Assimilation of multiple data types for improved heat flux prediction: A one-dimensional field study. <i>Remote Sensing of Environment</i> , 2013, 136, 315-329.	4.6	9
72	Inter-comparison of microwave satellite soil moisture retrievals over the Murrumbidgee Basin, southeast Australia. <i>Remote Sensing of Environment</i> , 2013, 134, 1-11.	4.6	112

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73	Impact of forest cover changes on annual streamflow and flow duration curves. <i>Journal of Hydrology</i> , 2013, 483, 39-50.	2.3	118
74	Predicting nitrogen dynamics in a dairy farming catchment using systems synthesis modelling. <i>Agricultural Systems</i> , 2013, 115, 144-154.	3.2	13
75	Linking water quality trends with land use intensification in dairy farming catchments. <i>Journal of Hydrology</i> , 2013, 476, 1-12.	2.3	44
76	Assimilation of stream discharge for flood forecasting: The benefits of accounting for routing time lags. <i>Water Resources Research</i> , 2013, 49, 1887-1900.	1.7	42
77	De-noising of passive and active microwave satellite soil moisture time series. <i>Geophysical Research Letters</i> , 2013, 40, 3624-3630.	1.5	24
78	An analysis of the impact of spatial variability in rainfall on runoff and sediment predictions from a distributed model. <i>Hydrological Processes</i> , 2012, 26, 3263-3280.	1.1	29
79	The within-day behaviour of 6 minute rainfall intensity in Australia. <i>Hydrology and Earth System Sciences</i> , 2011, 15, 2561-2579.	1.9	5
80	Towards a general equation for frequency domain reflectometers. <i>Journal of Hydrology</i> , 2010, 383, 319-329.	2.3	41
81	How old is streamwater? Open questions in catchment transit time conceptualization, modelling and analysis. <i>Hydrological Processes</i> , 2010, 24, 1745-1754.	1.1	276
82	Groundwater recharge and discharge dynamics in an arid-zone ephemeral lake system, Australia. <i>Limnology and Oceanography</i> , 2009, 54, 86-100.	1.6	20
83	Assimilation of remotely sensed data for improved latent and sensible heat flux prediction: A comparative synthetic study. <i>Remote Sensing of Environment</i> , 2008, 112, 1295-1305.	4.6	89
84	Water sources accessed by arid zone riparian trees in highly saline environments, Australia. <i>Oecologia</i> , 2008, 156, 43-52.	0.9	44
85	Investigating spatial and temporal variability in runoff and sediment generation using a physically-based model, Thales. <i>Australian Journal of Water Resources</i> , 2008, 12, 233-243.	1.6	0
86	Estimating extractable soil moisture content for Australian soils from field measurements. <i>Soil Research</i> , 2006, 44, 531.	0.6	7
87	A framework for assessing the potential of remote-sensed gravity to provide new insight on the hydrology of the Murray-Darling Basin. <i>Australian Journal of Water Resources</i> , 2006, 10, 125-138.	1.6	12
88	Remote sensing estimates of actual evapotranspiration in an irrigation district. <i>Australian Journal of Water Resources</i> , 2006, 10, 207-212.	1.6	0
89	An analysis of the influence of riparian vegetation on the propagation of flood waves. <i>Environmental Modelling and Software</i> , 2006, 21, 1290-1296.	1.9	99
90	A terrain and data-based method for generating the spatial distribution of soil moisture. <i>Advances in Water Resources</i> , 2005, 28, 43-54.	1.7	123

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91	A calibration and temperature correction procedure for the water-content reflectometer. <i>Hydrological Processes</i> , 2005, 19, 3785-3793.	1.1	31
92	Reply to comment by Tromp van Meerveld and McDonnell on Spatial correlation of soil moisture in small catchments and its relationship to dominant spatial hydrological processes. <i>Journal of Hydrology</i> , 2005, 303, 313-315.	2.3	12
93	A review of paired catchment studies for determining changes in water yield resulting from alterations in vegetation. <i>Journal of Hydrology</i> , 2005, 310, 28-61.	2.3	1,229
94	Process parameterization and temporal scaling in surface runoff and erosion modelling. <i>Hydrological Processes</i> , 2004, 18, 1423-1446.	1.1	43
95	Spatial correlation of soil moisture in small catchments and its relationship to dominant spatial hydrological processes. <i>Journal of Hydrology</i> , 2004, 286, 113-134.	2.3	532
96	On the ability of AirSAR to measure patterns of dielectric constant at the hillslope scale. <i>Journal of Hydrology</i> , 2004, 289, 9-22.	2.3	8
97	The Effect of Soil and Vegetation Parameters in the ECMWF Land Surface Scheme. <i>Journal of Hydrometeorology</i> , 2004, 5, 1131-1146.	0.7	23
98	A downward approach to identifying the structure and parameters of a process-based model for a small experimental catchment. <i>Hydrological Processes</i> , 2003, 17, 2239-2258.	1.1	24
99	A theory of patterns of passby noise. <i>Journal of Sound and Vibration</i> , 2003, 262, 1047-1056.	2.1	10
100	Spatial distribution of soil moisture over 6 and 30cm depth, Mahurangi river catchment, New Zealand. <i>Journal of Hydrology</i> , 2003, 276, 254-274.	2.3	88
101	Inferring the location of catchment characteristic soil moisture monitoring sites. Covariance structures in the temporal domain. <i>Journal of Hydrology</i> , 2003, 280, 13-32.	2.3	36
102	Advances in the use of observed spatial patterns of catchment hydrological response. <i>Advances in Water Resources</i> , 2002, 25, 1313-1334.	1.7	198
103	Scaling of Soil Moisture: A Hydrologic Perspective. <i>Annual Review of Earth and Planetary Sciences</i> , 2002, 30, 149-180.	4.6	428
104	Toward capturing hydrologically significant connectivity in spatial patterns. <i>Water Resources Research</i> , 2001, 37, 83-97.	1.7	338
105	Terrain and the distribution of soil moisture. <i>Hydrological Processes</i> , 2001, 15, 2689-2690.	1.1	65
106	The Tarrawarra project: high resolution spatial measurement, modelling and analysis of soil moisture and hydrological response. <i>Hydrological Processes</i> , 1999, 13, 633-652.	1.1	88
107	On the spatial scaling of soil moisture. <i>Journal of Hydrology</i> , 1999, 217, 203-224.	2.3	395
108	Observed spatial organization of soil moisture and its relation to terrain indices. <i>Water Resources Research</i> , 1999, 35, 797-810.	1.7	646

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109	A system for collecting spatially variable terrain data. Computers and Electronics in Agriculture, 1998, 19, 113-128.	3.7	17
110	Geostatistical characterisation of soil moisture patterns in the Tarrawarra catchment. Journal of Hydrology, 1998, 205, 20-37.	2.3	240
111	Towards areal estimation of soil water content from point measurements: time and space stability of mean response. Journal of Hydrology, 1998, 207, 68-82.	2.3	355
112	The Tarrawarra Data Set: Soil moisture patterns, soil characteristics, and hydrological flux measurements. Water Resources Research, 1998, 34, 2765-2768.	1.7	221
113	Preferred states in spatial soil moisture patterns: Local and nonlocal controls. Water Resources Research, 1997, 33, 2897-2908.	1.7	608
114	A method for characterising longitudinal irregularity in river channels. Geomorphology, 1997, 21, 39-51.	1.1	28
115	The behavior of stratified pools in the Wimmera River, Australia. Water Resources Research, 1996, 32, 3197-3206.	1.7	8