

Mark Cuthbert

List of Publications by Year in descending order

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Version: 2024-02-01

77
papers

3,006
citations

159358

30
h-index

182168

51
g-index

118
all docs

118
docs citations

118
times ranked

3275
citing authors

#	ARTICLE	IF	CITATIONS
1	Global climate-driven trade-offs between the water retention and cooling benefits of urban greening. <i>Nature Communications</i> , 2022, 13, 518.	5.8	39
2	The importance of non-stationary multiannual periodicities in the North Atlantic Oscillation index for forecasting water resource drought. <i>Hydrology and Earth System Sciences</i> , 2022, 26, 2449-2467.	1.9	3
3	Understanding process controls on groundwater recharge variability across Africa through recharge landscapes. <i>Journal of Hydrology</i> , 2022, 612, 127967.	2.3	6
4	Runoff and focused groundwater-recharge response to flooding rains in the arid zone of Australia. <i>Hydrogeology Journal</i> , 2021, 29, 737-764.	0.9	11
5	Quantifying temporal variability and spatial heterogeneity in rainfall recharge thresholds in a montane karst environment. <i>Journal of Hydrology</i> , 2021, 594, 125965.	2.3	9
6	Non-stationary control of the NAO on European rainfall and its implications for water resource management. <i>Hydrological Processes</i> , 2021, 35, e14099.	1.1	9
7	Exploring the role of hydrological pathways in modulating multi-annual climate teleconnection periodicities from UK rainfall to streamflow. <i>Hydrology and Earth System Sciences</i> , 2021, 25, 2223-2237.	1.9	11
8	Drought onset and propagation into soil moisture and grassland vegetation responses during the 2012-2019 major drought in Southern California. <i>Hydrology and Earth System Sciences</i> , 2021, 25, 3713-3729.	1.9	25
9	Hourly potential evapotranspiration at 0.1° resolution for the global land surface from 1981-present. <i>Scientific Data</i> , 2021, 8, 224.	2.4	59
10	Hydro-geomechanical characterisation of a coastal urban aquifer using multiscale time and frequency domain groundwater-level responses. <i>Hydrogeology Journal</i> , 2021, 29, 2751-2771.	0.9	3
11	The influence of groundwater abstraction on interpreting climate controls and extreme recharge events from well hydrographs in semi-arid South Africa. <i>Hydrogeology Journal</i> , 2021, 29, 2773-2787.	0.9	10
12	Focused groundwater recharge in a tropical dryland: Empirical evidence from central, semi-arid Tanzania. <i>Journal of Hydrology: Regional Studies</i> , 2021, 37, 100919.	1.0	10
13	DRYP 1.0: a parsimonious hydrological model of DRYland Partitioning of the water balance. <i>Geoscientific Model Development</i> , 2021, 14, 6893-6917.	1.3	14
14	Importance of the Micro-scale for the Macro-scale "What Can We Learn From Groundwater Ecosystems? ". 2021, , .		0
15	GMD perspective: The quest to improve the evaluation of groundwater representation in continental-to global-scale models. <i>Geoscientific Model Development</i> , 2021, 14, 7545-7571.	1.3	38
16	Modern speleothem oxygen isotope hydroclimate records in water-limited SE Australia. <i>Geochimica Et Cosmochimica Acta</i> , 2020, 270, 431-448.	1.6	10
17	Future-proofing hydrogeology by revising groundwater monitoring practice. <i>Hydrogeology Journal</i> , 2020, 28, 2963-2969.	0.9	14
18	Rethinking groundwater age. <i>Nature Geoscience</i> , 2020, 13, 592-594.	5.4	21

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19	Rainfall recharge thresholds in a subtropical climate determined using a regional cave drip water monitoring network. <i>Journal of Hydrology</i> , 2020, 587, 125001.	2.3	19
20	Characterising groundwater–surface water interactions in idealised ephemeral stream systems. <i>Hydrological Processes</i> , 2020, 34, 3792-3806.	1.1	27
21	Global Groundwater Sustainability, Resources, and Systems in the Anthropocene. <i>Annual Review of Earth and Planetary Sciences</i> , 2020, 48, 431-463.	4.6	161
22	Climate–groundwater dynamics inferred from GRACE and the role of hydraulic memory. <i>Earth System Dynamics</i> , 2020, 11, 775-791.	2.7	22
23	Technical note: Disentangling the groundwater response to Earth and atmospheric tides to improve subsurface characterisation. <i>Hydrology and Earth System Sciences</i> , 2020, 24, 6033-6046.	1.9	14
24	Observed controls on resilience of groundwater to climate variability in sub-Saharan Africa. <i>Nature</i> , 2019, 572, 230-234.	13.7	168
25	Global analysis reveals climatic controls on the oxygen isotope composition of cave drip water. <i>Nature Communications</i> , 2019, 10, 2984.	5.8	81
26	Understanding the potential of climate teleconnections to project future groundwater drought. <i>Hydrology and Earth System Sciences</i> , 2019, 23, 3233-3245.	1.9	37
27	Global patterns and dynamics of climate–groundwater interactions. <i>Nature Climate Change</i> , 2019, 9, 137-141.	8.1	244
28	The $\text{Ni}^{\pm\text{o}}$ event of 2015–2016: climate anomalies and their impact on groundwater resources in East and Southern Africa. <i>Hydrology and Earth System Sciences</i> , 2019, 23, 1751-1762.	1.9	52
29	20,000 years of societal vulnerability and adaptation to climate change in southwest Asia. <i>Wiley Interdisciplinary Reviews: Water</i> , 2019, 6, e1330.	2.8	30
30	A conceptual model for climatic teleconnection signal control on groundwater variability in Europe. <i>Earth-Science Reviews</i> , 2018, 177, 164-174.	4.0	31
31	The Influence of Syndepositional Macropores on the Hydraulic Integrity of Thick Alluvial Clay Aquitards. <i>Water Resources Research</i> , 2018, 54, 3122-3138.	1.7	8
32	Quantifying Compressible Groundwater Storage by Combining Cross-Hole Seismic Surveys and Head Response to Atmospheric Tides. <i>Journal of Geophysical Research F: Earth Surface</i> , 2018, 123, 1910-1930.	1.0	19
33	Modelling the role of groundwater hydro-refugia in East African hominin evolution and dispersal. <i>Nature Communications</i> , 2017, 8, 15696.	5.8	47
34	Towards an integrated understanding of how micro scale processes shape groundwater ecosystem functions. <i>Science of the Total Environment</i> , 2017, 592, 215-227.	3.9	30
35	Characterising the dynamics of surface water-groundwater interactions in intermittent and ephemeral streams using streambed thermal signatures. <i>Advances in Water Resources</i> , 2017, 107, 354-369.	1.7	37
36	Solar-forced diurnal regulation of cave drip rates via phreatophyte evapotranspiration. <i>Hydrology and Earth System Sciences</i> , 2016, 20, 4439-4455.	1.9	9

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37	An objective frequency domain method for quantifying confined aquifer compressible storage using Earth and atmospheric tides. <i>Geophysical Research Letters</i> , 2016, 43, 11,671.	1.5	30
38	Highway deicing salt dynamic runoff to surface water and subsequent infiltration to groundwater during severe UK winters. <i>Science of the Total Environment</i> , 2016, 565, 324-338.	3.9	62
39	Understanding and quantifying focused, indirect groundwater recharge from ephemeral streams using water table fluctuations. <i>Water Resources Research</i> , 2016, 52, 827-840.	1.7	61
40	An irrigation experiment to compare soil, water and speleothem tetraether membrane lipid distributions. <i>Organic Geochemistry</i> , 2016, 94, 12-20.	0.9	11
41	Long-term spatio-temporal precipitation variability in arid-zone Australia and implications for groundwater recharge. <i>Hydrogeology Journal</i> , 2016, 24, 905-921.	0.9	23
42	Semi-arid zone caves: Evaporation and hydrological controls on $\delta^{18}O$ drip water composition and implications for speleothem paleoclimate reconstructions. <i>Quaternary Science Reviews</i> , 2016, 131, 285-301.	1.4	40
43	Comparisons of observed and modelled lake $\delta^{18}O$ variability. <i>Quaternary Science Reviews</i> , 2016, 131, 329-340.	1.4	34
44	Assessing the accuracy of ^{14}C analytical heat tracing for estimating near-surface sediment thermal diffusivity and water flux under transient conditions. <i>Journal of Geophysical Research F: Earth Surface</i> , 2015, 120, 1551-1573.	1.0	34
45	Technical Note: The use of an interrupted-flow centrifugation method to characterise preferential flow in low permeability media. <i>Hydrology and Earth System Sciences</i> , 2015, 19, 3991-4000.	1.9	5
46	Organic characterisation of cave drip water by LC-OCD and fluorescence analysis. <i>Geochimica Et Cosmochimica Acta</i> , 2015, 166, 15-28.	1.6	23
47	Controls on cave drip water temperature and implications for speleothem-based paleoclimate reconstructions. <i>Quaternary Science Reviews</i> , 2015, 127, 19-36.	1.4	31
48	Hydrogeology Journal		
49	A Spring Forward for Hominin Evolution in East Africa. <i>PLoS ONE</i> , 2014, 9, e107358.	1.1	36
50	Straight thinking about groundwater recession. <i>Water Resources Research</i> , 2014, 50, 2407-2424.	1.7	40
51	Local thermal non-equilibrium in sediments: Implications for temperature dynamics and the use of heat as a tracer. <i>Advances in Water Resources</i> , 2014, 73, 176-184.	1.7	19
52	Drip water isotopes in semi-arid karst: Implications for speleothem paleoclimatology. <i>Earth and Planetary Science Letters</i> , 2014, 395, 194-204.	1.8	66
53	Dripwater organic matter and trace element geochemistry in a semi-arid karst environment: Implications for speleothem paleoclimatology. <i>Geochimica Et Cosmochimica Acta</i> , 2014, 135, 217-230.	1.6	61
54	Understanding process dynamics at aquifer-surface water interfaces: An introduction to the special section on new modeling approaches and novel experimental technologies. <i>Water Resources Research</i> , 2014, 50, 1847-1855.	1.7	52

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55	Transport of <i>Sporosarcina pasteurii</i> in sandstone and its significance for subsurface engineering technologies. <i>Applied Geochemistry</i> , 2014, 42, 38-44.	1.4	40
56	Bacterially Produced Calcium Phosphate Nanobiominerals: Sorption Capacity, Site Preferences, and Stability of Captured Radionuclides. <i>Environmental Science & Technology</i> , 2014, 48, 6891-6898.	4.6	43
57	Evaporative cooling of speleothem drip water. <i>Scientific Reports</i> , 2014, 4, 5162.	1.6	29
58	Kinetics of urease mediated calcite precipitation and permeability reduction of porous media evidenced by magnetic resonance imaging. <i>International Journal of Environmental Science and Technology</i> , 2013, 10, 881-890.	1.8	27
59	A Field and Modeling Study of Fractured Rock Permeability Reduction Using Microbially Induced Calcite Precipitation. <i>Environmental Science & Technology</i> , 2013, 47, 13637-13643.	4.6	178
60	Impacts of nonuniform flow on estimates of vertical streambed flux. <i>Water Resources Research</i> , 2013, 49, 19-28.	1.7	46
61	Linking soil moisture balance and source-responsive models to estimate diffuse and preferential components of groundwater recharge. <i>Hydrology and Earth System Sciences</i> , 2013, 17, 1003-1019.	1.9	30
62	Kinetics of urease mediated calcite precipitation and permeability reduction of porous media evidenced by magnetic resonance imaging. <i>International Journal of Environmental Science and Technology</i> , 2013, 10, 881-890.	1.8	5
63	The legacy of chlorinated solvents in the Birmingham aquifer, UK: Observations spanning three decades and the challenge of future urban groundwater development. <i>Journal of Contaminant Hydrology</i> , 2012, 140-141, 107-123.	1.6	26
64	Controls on the rate of ureolysis and the morphology of carbonate precipitated by <i>S. Pasteurii</i> biofilms and limits due to bacterial encapsulation. <i>Ecological Engineering</i> , 2012, 41, 32-40.	1.6	94
65	Towards best practice for assessing the impacts of climate change on groundwater. <i>Hydrogeology Journal</i> , 2012, 20, 1-4.	0.9	99
66	Comparison of rates of ureolysis between <i>Sporosarcina pasteurii</i> and an indigenous groundwater community under conditions required to precipitate large volumes of calcite. <i>Geochimica Et Cosmochimica Acta</i> , 2011, 75, 3290-3301.	1.6	152
67	A Wet/Wet Differential Pressure Sensor for Measuring Vertical Hydraulic Gradient. <i>Ground Water</i> , 2011, 49, 781-782.	0.7	2
68	The importance of preferential flow in controlling groundwater recharge in tropical Africa and implications for modelling the impact of climate change on groundwater resources. <i>Journal of Water and Climate Change</i> , 2010, 1, 234-245.	1.2	28
69	An inexpensive flow-through laser nephelometer for the detection of natural colloids and manufactured nanoparticles. <i>Journal of Hydrology</i> , 2010, 388, 112-120.	2.3	6
70	Combining unsaturated and saturated hydraulic observations to understand and estimate groundwater recharge through glacial till. <i>Journal of Hydrology</i> , 2010, 391, 263-276.	2.3	31
71	Impacts of river bed gas on the hydraulic and thermal dynamics of the hyporheic zone. <i>Advances in Water Resources</i> , 2010, 33, 1347-1358.	1.7	38
72	An improved time series approach for estimating groundwater recharge from groundwater level fluctuations. <i>Water Resources Research</i> , 2010, 46, .	1.7	70

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73	Reply to Discussion of "The use of electrical resistivity tomography in deriving local-scale models of recharge through superficial deposits", by M.O. Cuthbert, R. Mackay, J.H. Tellam, R.D. Barker, Quarterly Journal of Engineering Geology and Hydrogeology, 42, 199-209, by M.G. Shepley & K.J. Voyce. Quarterly Journal of Engineering Geology and Hydrogeology, 2010, 43, 364-364.	0.8	1
74	The use of electrical resistivity tomography in deriving local-scale models of recharge through superficial deposits. Quarterly Journal of Engineering Geology and Hydrogeology, 2009, 42, 199-209.	0.8	28
75	The design and application of an inexpensive pressure monitoring system for shallow water level measurement, tensiometry and piezometry. Journal of Hydrology, 2009, 373, 416-425.	2.3	19
76	Trends in arsenic concentration at tubewells in Bangladesh: conceptual models, numerical models, and monitoring proxies. Trace Metals and Other Contaminants in the Environment, 2007, 9, 63-83.	0.1	3
77	Constraints on sustainable development of arsenic-bearing aquifers in southern Bangladesh. Part 2: Preliminary models of arsenic variability in pumped groundwater. Geological Society Special Publication, 2002, 193, 165-179.	0.8	9