

Al Kay

List of Publications by Year in descending order

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Version: 2024-02-01

65
papers

3,853
citations

147801

31
h-index

128289

60
g-index

73
all docs

73
docs citations

73
times ranked

3707
citing authors

#	ARTICLE	IF	CITATIONS
1	Use of Abstraction and Discharge Data to Improve the Performance of a National-scale Hydrological Model. <i>Water Resources Research</i> , 2022, 58, .	4.2	11
2	Grid-based simulation of soil moisture in the UK: future changes in extremes and wetting and drying dates. <i>Environmental Research Letters</i> , 2022, 17, 074029.	5.2	6
3	Differences in hydrological impacts using regional climate model and nested convection-permitting model data. <i>Climatic Change</i> , 2022, 173, .	3.6	6
4	Changing climate risk in the UK: A multi-sectoral analysis using policy-relevant indicators. <i>Climate Risk Management</i> , 2021, 31, 100265.	3.2	41
5	Climate change impacts on peak river flows: Combining national-scale hydrological modelling and probabilistic projections. <i>Climate Risk Management</i> , 2021, 31, 100263.	3.2	32
6	Simulation of river flow in Britain under climate change: Baseline performance and future seasonal changes. <i>Hydrological Processes</i> , 2021, 35, e14137.	2.6	24
7	Climate change effects on indicators of high and low river flow across Great Britain. <i>Advances in Water Resources</i> , 2021, 151, 103909.	3.8	22
8	Climate Change Impact on the Magnitude and Timing of Hydrological Extremes Across Great Britain. <i>Frontiers in Water</i> , 2021, 3, .	2.3	29
9	Indicators of climate risk in the UK at different levels of warming. <i>Environmental Research Communications</i> , 2021, 3, 095005.	2.3	8
10	Grid-based simulation of river flows in Northern Ireland: Model performance and future flow changes. <i>Journal of Hydrology: Regional Studies</i> , 2021, 38, 100967.	2.4	11
11	How might climate change affect river flows across West Africa?. <i>Climatic Change</i> , 2021, 169, 1.	3.6	13
12	Investigating potential future changes in surface water flooding hazard and impact. <i>Hydrological Processes</i> , 2020, 34, 139-149.	2.6	11
13	The impact of climate change on U. K. river flows: A preliminary comparison of two generations of probabilistic climate projections. <i>Hydrological Processes</i> , 2020, 34, 1081-1088.	2.6	26
14	National-scale analysis of future river flow and soil moisture droughts: potential changes in drought characteristics. <i>Climatic Change</i> , 2019, 156, 323-340.	3.6	32
15	An assessment of the potential for natural flood management to offset climate change impacts. <i>Environmental Research Letters</i> , 2019, 14, 044017.	5.2	22
16	National-scale analysis of low flow frequency: historical trends and potential future changes. <i>Climatic Change</i> , 2018, 147, 585-599.	3.6	20
17	Flood event attribution and damage estimation using national-scale grid-based modelling: Winter 2013/2014 in Great Britain. <i>International Journal of Climatology</i> , 2018, 38, 5205-5219.	3.5	13
18	The MaRIUS-G2G datasets: Grid-to-Grid model estimates of flow and soil moisture for Great Britain using observed and climate model driving data. <i>Geoscience Data Journal</i> , 2018, 5, 63-72.	4.4	15

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19	A large set of potential past, present and future hydro-meteorological time series for the UK. <i>Hydrology and Earth System Sciences</i> , 2018, 22, 611-634.	4.9	54
20	The evolution of climate change guidance for fluvial flood risk management in England. <i>Progress in Physical Geography</i> , 2017, 41, 222-237.	3.2	37
21	National-scale analysis of simulated hydrological droughts (1891–2015). <i>Journal of Hydrology</i> , 2017, 550, 368-385.	5.4	43
22	A national-scale seasonal hydrological forecast system: development and evaluation over Britain. <i>Hydrology and Earth System Sciences</i> , 2017, 21, 4681-4691.	4.9	38
23	A review of snow in Britain. <i>Progress in Physical Geography</i> , 2016, 40, 676-698.	3.2	19
24	Use of very high resolution climate model data for hydrological modelling: estimation of potential evaporation. <i>Hydrology Research</i> , 2016, 47, 660-670.	2.7	32
25	Human influence on climate in the 2014 southern England winter floods and their impacts. <i>Nature Climate Change</i> , 2016, 6, 627-634.	18.8	237
26	An assessment of the possible impacts of climate change on snow and peak river flows across Britain. <i>Climatic Change</i> , 2016, 136, 539-553.	3.6	49
27	Reply to 'Drivers of the 2013/14 winter floods in the UK'. <i>Nature Climate Change</i> , 2015, 5, 491-492.	18.8	2
28	Climate change and water in the UK – past changes and future prospects. <i>Progress in Physical Geography</i> , 2015, 39, 6-28.	3.2	178
29	Simulation of river flow in the Thames over 120 years: Evidence of change in rainfall-runoff response?. <i>Journal of Hydrology: Regional Studies</i> , 2015, 4, 172-195.	2.4	14
30	Use of very high resolution climate model data for hydrological modelling: baseline performance and future flood changes. <i>Climatic Change</i> , 2015, 133, 193-208.	3.6	42
31	From Catchment to National Scale Rainfall-Runoff Modelling: Demonstration of a Hydrological Modelling Framework. <i>Hydrology</i> , 2014, 1, 63-88.	3.0	17
32	An investigation of the effect of transient climate change on snowmelt, flood frequency and timing in northern Britain. <i>International Journal of Climatology</i> , 2014, 34, 3368-3381.	3.5	27
33	Using response surfaces to estimate impacts of climate change on flood peaks: assessment of uncertainty. <i>Hydrological Processes</i> , 2014, 28, 5273-5287.	2.6	28
34	Probabilistic impacts of climate change on flood frequency using response surfaces I: England and Wales. <i>Regional Environmental Change</i> , 2014, 14, 1215-1227.	2.9	37
35	Probabilistic impacts of climate change on flood frequency using response surfaces II: Scotland. <i>Regional Environmental Change</i> , 2014, 14, 1243-1255.	2.9	23
36	Potential influences on the United Kingdom's floods of winter 2013/14. <i>Nature Climate Change</i> , 2014, 4, 769-777.	18.8	149

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37	Climate change and river flooding: Part 2 sensitivity characterisation for british catchments and example vulnerability assessments. Climatic Change, 2013, 119, 949-964.	3.6	49
38	Climate change and river flooding: part 1 classifying the sensitivity of British catchments. Climatic Change, 2013, 119, 933-948.	3.6	56
39	A hydrological perspective on evaporation: historical trends and future projections in Britain. Journal of Water and Climate Change, 2013, 4, 193-208.	2.9	55
40	Developing a large-scale water balance approach to seasonal forecasting: application to the 2012 drought in Britain. Hydrological Processes, 2013, 27, 3003-3012.	2.6	18
41	Comparison of the use of alternative UKCP09 products for modelling the impacts of climate change on flood frequency. Climatic Change, 2012, 114, 211-230.	3.6	49
42	How might climate change affect river flows across the Thames Basin? An area-wide analysis using the UKCP09 Regional Climate Model ensemble. Journal of Hydrology, 2012, 442-443, 89-104.	5.4	60
43	Transient changes in flood frequency and timing in Britain under potential projections of climate change. International Journal of Climatology, 2012, 32, 489-502.	3.5	58
44	Attribution of Autumn/Winter 2000 flood risk in England to anthropogenic climate change: A catchment-based study. Journal of Hydrology, 2011, 406, 97-112.	5.4	70
45	Estimating Potential Evaporation from Vegetated Surfaces for Water Management Impact Assessments Using Climate Model Output. Journal of Hydrometeorology, 2011, 12, 1127-1136.	1.9	22
46	Scenario-neutral approach to climate change impact studies: Application to flood risk. Journal of Hydrology, 2010, 390, 198-209.	5.4	349
47	Are seemingly physically similar catchments truly hydrologically similar?. Water Resources Research, 2010, 46, .	4.2	220
48	Use of soil data in a grid-based hydrological model to estimate spatial variation in changing flood risk across the UK. Journal of Hydrology, 2009, 377, 335-350.	5.4	105
49	Comparison of uncertainty sources for climate change impacts: flood frequency in England. Climatic Change, 2009, 92, 41-63.	3.6	488
50	Calculating potential evaporation from climate model data: A source of uncertainty for hydrological climate change impacts. Journal of Hydrology, 2008, 358, 221-239.	5.4	153
51	An investigation of site-similarity approaches to generalisation of a rainfall-runoff model. Hydrology and Earth System Sciences, 2007, 11, 500-515.	4.9	52
52	Development of a high resolution grid-based river flow model for use with regional climate model output. Hydrology and Earth System Sciences, 2007, 11, 532-549.	4.9	133
53	Use of a grid-based hydrological model and regional climate model outputs to assess changing flood risk. International Journal of Climatology, 2007, 27, 1657-1671.	3.5	56
54	Uncertainty analysis for estimating flood frequencies for ungauged catchments using rainfall-runoff models. Advances in Water Resources, 2007, 30, 1190-1204.	3.8	13

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55	Flood risk in the UK: current and future. WIT Transactions on Ecology and the Environment, 2007, , .	0.0	0
56	RCM rainfall for UK flood frequency estimation. I. Method and validation. Journal of Hydrology, 2006, 318, 151-162.	5.4	82
57	RCM rainfall for UK flood frequency estimation. II. Climate change results. Journal of Hydrology, 2006, 318, 163-172.	5.4	172
58	A comparison of three approaches to spatial generalization of rainfall-runoff models. Hydrological Processes, 2006, 20, 3953-3973.	2.6	60
59	Influence Diagrams for Representing Uncertainty in Climate-Related Propositions. Climatic Change, 2005, 69, 343-365.	3.6	24
60	Confidence intervals for a spatially generalized, continuous simulation flood frequency model for Great Britain. Water Resources Research, 2004, 40, .	4.2	69
61	Travelling waves for a coupled, singular reaction-diffusion system arising from a model of fractional order autocatalysis with decay: I. Permanent form travelling waves. Nonlinearity, 2003, 16, 735-770.	1.4	7
62	Comparison theorems and variable speed waves for a scalar reaction-diffusion equation. Proceedings of the Royal Society of Edinburgh Section A: Mathematics, 2001, 131, 1133-1161.	1.2	18
63	Spatial Noise Stabilizes Periodic Wave Patterns in Oscillatory Systems on Finite Domains. SIAM Journal on Applied Mathematics, 2000, 61, 1013-1041.	1.8	20
64	On the persistence of spatiotemporal oscillations generated by invasion. IMA Journal of Applied Mathematics, 1999, 63, 199-216.	1.6	14
65	Climate change allowances, non-stationarity and flood frequency analyses. Journal of Flood Risk Management, 0, , .	3.3	1