# Al Kay

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/5041448/publications.pdf

Version: 2024-02-01

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|---|---|---|---|
| 65<br>papers | 3,853<br>citations | 147801<br>31<br>h-index | 128289<br>60<br>g-index |
| 73<br>all docs | 73<br>docs citations | 73<br>times ranked | 3707<br>citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Comparison of uncertainty sources for climate change impacts: flood frequency in England. Climatic Change, 2009, 92, 41-63. | 3.6 | 488 |
| 2 | Scenario-neutral approach to climate change impact studies: Application to flood risk. Journal of Hydrology, 2010, 390, 198-209. | 5.4 | 349 |
| 3 | Human influence on climate in the 2014 southern England winter floods and their impacts. Nature Climate Change, 2016, 6, 627-634. | 18.8 | 237 |
| 4 | Are seemingly physically similar catchments truly hydrologically similar?. Water Resources Research, 2010, 46, . | 4.2 | 220 |
| 5 | Climate change and water in the UK â€“ past changes and future prospects. Progress in Physical Geography, 2015, 39, 6-28. | 3.2 | 178 |
| 6 | RCM rainfall for UK flood frequency estimation. II. Climate change results. Journal of Hydrology, 2006, 318, 163-172. | 5.4 | 172 |
| 7 | 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 |
| 8 | Potential influences on the United Kingdom's floods of winter 2013/14. Nature Climate Change, 2014, 4, 769-777. | 18.8 | 149 |
| 9 | 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 |
| 10 | 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 |
| 11 | RCM rainfall for UK flood frequency estimation. I. Method and validation. Journal of Hydrology, 2006, 318, 151-162. | 5.4 | 82 |
| 12 | 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 |
| 13 | Confidence intervals for a spatially generalized, continuous simulation flood frequency model for Great Britain. Water Resources Research, 2004, 40, . | 4.2 | 69 |
| 14 | A comparison of three approaches to spatial generalization of rainfallâ€“runoff models. Hydrological Processes, 2006, 20, 3953-3973. | 2.6 | 60 |
| 15 | 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 |
| 16 | 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 |
| 17 | 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 |
| 18 | Climate change and river flooding: part 1 classifying the sensitivity of British catchments. Climatic Change, 2013, 119, 933-948. | 3.6 | 56 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | 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 |
| 20 | A large set of potential past, present and future hydro-meteorological time series for the UK. Hydrology and Earth System Sciences, 2018, 22, 611-634. | 4.9 | 54 |
| 21 | An investigation of site-similarity approaches to generalisation of a rainfallâ€“runoff model. Hydrology and Earth System Sciences, 2007, 11, 500-515. | 4.9 | 52 |
| 22 | 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 |
| 23 | 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 |
| 24 | An assessment of the possible impacts of climate change on snow and peak river flows across Britain. Climatic Change, 2016, 136, 539-553. | 3.6 | 49 |
| 25 | National-scale analysis of simulated hydrological droughts (1891â€“2015). Journal of Hydrology, 2017, 550, 368-385. | 5.4 | 43 |
| 26 | Use of very high resolution climate model data for hydrological modelling: baseline performance and future flood changes. Climatic Change, 2015, 133, 193-208. | 3.6 | 42 |
| 27 | Changing climate risk in the UK: A multi-sectoral analysis using policy-relevant indicators. Climate Risk Management, 2021, 31, 100265. | 3.2 | 41 |
| 28 | A national-scale seasonal hydrological forecast system: development and evaluation over Britain. Hydrology and Earth System Sciences, 2017, 21, 4681-4691. | 4.9 | 38 |
| 29 | Probabilistic impacts of climate change on flood frequency using response surfaces I: England and Wales. Regional Environmental Change, 2014, 14, 1215-1227. | 2.9 | 37 |
| 30 | The evolution of climate change guidance for fluvial flood risk management in England. Progress in Physical Geography, 2017, 41, 222-237. | 3.2 | 37 |
| 31 | Use of very high resolution climate model data for hydrological modelling: estimation of potential evaporation. Hydrology Research, 2016, 47, 660-670. | 2.7 | 32 |
| 32 | National-scale analysis of future river flow and soil moisture droughts: potential changes in drought characteristics. Climatic Change, 2019, 156, 323-340. | 3.6 | 32 |
| 33 | Climate change impacts on peak river flows: Combining national-scale hydrological modelling and probabilistic projections. Climate Risk Management, 2021, 31, 100263. | 3.2 | 32 |
| 34 | Climate Change Impact on the Magnitude and Timing of Hydrological Extremes Across Great Britain. Frontiers in Water, 2021, 3, . | 2.3 | 29 |
| 35 | Using response surfaces to estimate impacts of climate change on flood peaks: assessment of uncertainty. Hydrological Processes, 2014, 28, 5273-5287. | 2.6 | 28 |
| 36 | An investigation of the effect of transient climate change on snowmelt, flood frequency and timing in northern Britain. International Journal of Climatology, 2014, 34, 3368-3381. | 3.5 | 27 |

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|---|---|---|---|
| 37 | The impact of climate change on U. K. river flows: A preliminary comparison of two generations of probabilistic climate projections. Hydrological Processes, 2020, 34, 1081-1088. | 2.6 | 26 |
| 38 | Influence Diagrams for Representing Uncertainty in Climate-Related Propositions. Climatic Change, 2005, 69, 343-365. | 3.6 | 24 |
| 39 | Simulation of river flow in Britain under climate change: Baseline performance and future seasonal changes. Hydrological Processes, 2021, 35, e14137. | 2.6 | 24 |
| 40 | Probabilistic impacts of climate change on flood frequency using response surfaces II: Scotland. Regional Environmental Change, 2014, 14, 1243-1255. | 2.9 | 23 |
| 41 | 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 |
| 42 | An assessment of the potential for natural flood management to offset climate change impacts. Environmental Research Letters, 2019, 14, 044017. | 5.2 | 22 |
| 43 | Climate change effects on indicators of high and low river flow across Great Britain. Advances in Water Resources, 2021, 151, 103909. | 3.8 | 22 |
| 44 | Spatial Noise Stabilizes Periodic Wave Patterns in Oscillatory Systems on Finite Domains. SIAM Journal on Applied Mathematics, 2000, 61, 1013-1041. | 1.8 | 20 |
| 45 | National-scale analysis of low flow frequency: historical trends and potential future changes. Climatic Change, 2018, 147, 585-599. | 3.6 | 20 |
| 46 | A review of snow in Britain. Progress in Physical Geography, 2016, 40, 676-698. | 3.2 | 19 |
| 47 | Comparison theorems and variable speed waves for a scalar reactionâ€“diffusion equation. Proceedings of the Royal Society of Edinburgh Section A: Mathematics, 2001, 131, 1133-1161. | 1.2 | 18 |
| 48 | Developing a largeâ€scale waterâ€balance approach to seasonal forecasting: application to the 2012 drought in Britain. Hydrological Processes, 2013, 27, 3003-3012. | 2.6 | 18 |
| 49 | From Catchment to National Scale Rainfall-Runoff Modelling: Demonstration of a Hydrological Modelling Framework. Hydrology, 2014, 1, 63-88. | 3.0 | 17 |
| 50 | The MaRIUSâ€G2G datasets: Gridâ€toâ€Grid model estimates of flow and soil moisture for Great Britain using observed and climate model driving data. Geoscience Data Journal, 2018, 5, 63-72. | 4.4 | 15 |
| 51 | On the persistence of spatiotemporal oscillations generated by invasion. IMA Journal of Applied Mathematics, 1999, 63, 199-216. | 1.6 | 14 |
| 52 | Simulation of river flow in the Thames over 120 years: Evidence of change in rainfall-runoff response?. Journal of Hydrology: Regional Studies, 2015, 4, 172-195. | 2.4 | 14 |
| 53 | Uncertainty analysis for estimating flood frequencies for ungauged catchments using rainfall-runoff models. Advances in Water Resources, 2007, 30, 1190-1204. | 3.8 | 13 |
| 54 | Flood event attribution and damage estimation using nationalâ€scale gridâ€based modelling: Winter 2013/2014 in Great Britain. International Journal of Climatology, 2018, 38, 5205-5219. | 3.5 | 13 |

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|---|---|---|---|
| 55 | How might climate change affect river flows across West Africa?. Climatic Change, 2021, 169, 1. | 3.6 | 13 |
| 56 | Investigating potential future changes in surface water flooding hazard and impact. Hydrological Processes, 2020, 34, 139-149. | 2.6 | 11 |
| 57 | Grid-based simulation of river flows in Northern Ireland: Model performance and future flow changes. Journal of Hydrology: Regional Studies, 2021, 38, 100967. | 2.4 | 11 |
| 58 | Use of Abstraction and Discharge Data to Improve the Performance of a Nationalâ€Scale Hydrological Model. Water Resources Research, 2022, 58, . | 4.2 | 11 |
| 59 | Indicators of climate risk in the UK at different levels of warming. Environmental Research Communications, 2021, 3, 095005. | 2.3 | 8 |
| 60 | Travelling waves for a coupled, singular reactionÂdiffusion system arising from a model of fractional order autocatalysis with decay: I. Permanent form travelling waves. Nonlinearity, 2003, 16, 735-770. | 1.4 | 7 |
| 61 | Grid-based simulation of soil moisture in the UK: future changes in extremes and wetting and drying dates. Environmental Research Letters, 2022, 17, 074029. | 5.2 | 6 |
| 62 | Differences in hydrological impacts using regional climate model and nested convection-permitting model data. Climatic Change, 2022, 173, . | 3.6 | 6 |
| 63 | Reply to 'Drivers of the 2013/14 winter floods in the UK'. Nature Climate Change, 2015, 5, 491-492. | 18.8 | 2 |
| 64 | Climate change allowances, nonâ€stationarity and flood frequency analyses. Journal of Flood Risk Management, 0, , . | 3.3 | 1 |
| 65 | Flood risk in the UK: current and future. WIT Transactions on Ecology and the Environment, 2007, , . | 0.0 | 0 |