Michael Bruen

List of Publications by Year
in descending order

91 papers	3,256 citations	185998 28 h-index	174990 52 g-index
102 all docs	102 docs citations	102 times ranked	3993 citing authors

#	Article	IF	Citations
1	A Bayesian Modelling Framework for Integration of Ecosystem Services into Freshwater Resources Management. Environmental Management, 2022, 69, 781-800.	1.2	5
2	Effect of low-head dams on reach-scale suspended sediment dynamics in coarse-bedded streams. Journal of Environmental Management, 2021, 277, 111452.	3.8	10
3	Uptake and Dissemination of Multi-Criteria Decision Support Methods in Civil Engineeringâ€"Lessons from the Literature. Applied Sciences (Switzerland), 2021, 11, 2940.	1.3	8
4	Coarse sediment dynamics and low-head dams: Monitoring instantaneous bedload transport using a stationary RFID antenna. Journal of Environmental Management, 2021, 300, 113671.	3.8	7
5	Catchment Characterisation Tool: Prioritising Critical Source Areas for managing diffuse nitrate pollution. Environmental Modeling and Assessment, 2020, 25, 23-39.	1.2	3
6	Peak grain forecasts for the US High Plains amid withering waters. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 26145-26150.	3.3	12
7	Homogenization of the terrestrial water cycle. Nature Geoscience, 2020, 13, 656-658.	5.4	242
8	Calibration of hydrological models for ecologically relevant streamflow predictions: a trade-off between fitting well to data and estimating consistent parameter sets?. Hydrology and Earth System Sciences, 2020, 24, 1031-1054.	1.9	16
9	Loose One-Way Coupling of Land Use and Nutrient Emission Models to Assess Effects of Regional Development Scenarios on Catchment Water Quality. Environmental Modeling and Assessment, 2020, 25, 591-607.	1.2	2
10	An inspection-based assessment of obstacles to salmon, trout, eel and lamprey migration and river channel connectivity in Ireland. Science of the Total Environment, 2020, 719, 137215.	3.9	18
11	Impact of low-head dams on bedload transport rates in coarse-bedded streams. Science of the Total Environment, 2020, 716, 136908.	3.9	25
12	Advancing ecohydrology in the 21st century: A convergence of opportunities. Ecohydrology, 2020, 13, e2208.	1.1	34
13	Overview of Forecast Communication and Use of Ensemble Hydrometeorological Forecasts. , 2019, , 1037-1045.		2
14	Further insights into the responses of macroinvertebrate species to burial by sediment. Hydrobiologia, 2018, 805, 399-411.	1.0	21
15	Modelling spatial and temporal variations of annual suspended sediment yields from small agricultural catchments. Science of the Total Environment, 2018, 619-620, 672-684.	3.9	11
16	Challenges in Using Hydrology and Water Quality Models for Assessing Freshwater Ecosystem Services: A Review. Geosciences (Switzerland), 2018, 8, 45.	1.0	23
17	The value of a desk study for building a national river obstacle inventory. River Research and Applications, 2018, 34, 1085-1094.	0.7	6
18	Detection of trends in the 7-day sustained low-flow time series of Irish rivers. Hydrological Sciences Journal, 2017, 62, 947-959.	1.2	8

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19	Measurement differences between turbidity instruments, and their implications for suspended sediment concentration and load calculations: A sensor inter-comparison study. Journal of Environmental Management, 2017, 199, 99-108.	3.8	38
20	Sources of nitrogen and phosphorus emissions to Irish rivers and coastal waters: Estimates from a nutrient load apportionment framework. Science of the Total Environment, 2017, 601-602, 326-339.	3.9	83
21	An evaluation of visual and measurement-based methods for estimating deposited fine sediment. International Journal of Sediment Research, 2016, 31, 368-375.	1.8	12
22	Evaluating the relationship between biotic and sediment metrics using mesocosms and field studies. Science of the Total Environment, 2016, 568, 1092-1101.	3.9	19
23	Assessing the relative importance of parameter and forcing uncertainty and their interactions in conceptual hydrological model simulations. Advances in Water Resources, 2016, 97, 299-313.	1.7	41
24	Methodology and Application of the Combined SWAT-HSPF Model. Environmental Processes, 2016, 3, 645-661.	1.7	7
25	Understanding hydrological flow paths in conceptual catchment models using uncertainty and sensitivity analysis. Computers and Geosciences, 2016, 90, 66-77.	2.0	36
26	The impact of cattle access on ecological water quality in streams: Examples from agricultural catchments within Ireland. Science of the Total Environment, 2016, 547, 17-29.	3.9	38
27	Nutrient load apportionment to support the identification of appropriate water framework directive measures. Biology and Environment, 2016, 116B, 245.	0.2	8
28	Nutrient load apportionment to support the identification of appropriate water framework directive measures. Biology and Environment, 2016, 116B, 245-263.	0.2	2
29	The effect of forest windrowing on physico-chemical water quality in Ireland. Science of the Total Environment, 2015, 514, 155-169.	3.9	12
30	Improved semi-distributed model for phosphorus losses from Irish catchments. Environmental Technology (United Kingdom), 2014, 35, 2506-2519.	1.2	1
31	Dublin Ireland: a city addressing challenging water supply, management, and governance issues. Ecology and Society, 2014, 19, .	1.0	15
32	Geographic Information System-based tools in environmental management. International Journal of Environmental Studies, 2014, 71, 526-533.	0.7	1
33	Modelling the hydrological impacts of rural land use change. Hydrology Research, 2014, 45, 737-754.	1.1	44
34	Towards a nonlinear radar-gauge adjustment of radar via a piece-wise method. Meteorological Applications, 2014, 21, 675-683.	0.9	10
35	Validation of remotely sensed rainfall over major climatic regions in Northeast Tanzania. Physics and Chemistry of the Earth, 2014, 67-69, 55-63.	1.2	56
36	Environmental consequences of a power plant shut-down: A three-dimensional water quality model of Dublin Bay. Marine Pollution Bulletin, 2013, 71, 117-128.	2.3	24

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37	A regional examination of episodic acidification response to reduced acidic deposition and the influence of plantation forests in Irish headwater streams. Science of the Total Environment, 2013, 443, 173-183.	3.9	20
38	Derivation of a fuzzy national phosphorus export model using 84 Irish catchments. Science of the Total Environment, 2013, 443, 539-548.	3.9	2
39	Bankfull discharge and recurrence intervals in Irish rivers. Water Management, 2013, 166, 381-393.	0.4	31
40	Parameter sensitivity of a watershed-scale flood forecasting model as a function of modelling time-step. Hydrology Research, 2013, 44, 334-350.	1.1	15
41	A modified Muskingum routing approach for floodplain flows: Theory and practice. Journal of Hydrology, 2012, 470-471, 239-254.	2.3	28
42	Vibrational Spectroscopy for Analysis of Water for Human Use and in Aquatic Ecosystems. Critical Reviews in Environmental Science and Technology, 2012, 42, 2546-2573.	6.6	26
43	Influences on flood frequency distributions in Irish river catchments. Hydrology and Earth System Sciences, 2012, 16, 1137-1150.	1.9	21
44	Water quality monitoring during the construction of the M3 motorway in Ireland. Water and Environment Journal, 2012, 26, 175-183.	1.0	9
45	Urban drainage in <scp>I</scp>reland â€" embracing sustainable systems. Water and Environment Journal, 2012, 26, 241-251.	1.0	18
46	The impact of a catastrophic storm event on benthic macroinvertebrate communities in upland headwater streams and potential implications for ecological diversity and assessment of ecological status. Journal of Limnology, 2012, 71, 32.	0.3	29
47	The COST 731 Action: A review on uncertainty propagation in advanced hydro-meteorological forecast systems. Atmospheric Research, 2011, 100, 150-167.	1.8	76
48	A Three-Dimensional Hydro-Environmental Model of Dublin Bay. Environmental Modeling and Assessment, 2011, 16, 369-384.	1.2	25
49	Technical assessment and evaluation of environmental models and software: Letter to the Editor. Environmental Modelling and Software, 2011, 26, 328-336.	1.9	64
50	Integrating the implementation of the European Union Water Framework Directive and Floods Directive in Ireland. Water Science and Technology, 2011, 64, 2044-2051.	1.2	6
51	An evaluation of urban flood estimation methodologies in Ireland. Water and Environment Journal, 2010, 24, 49-57.	1.0	3
52	HYDROLOGY AND THE WATER FRAMEWORK DIRECTIVE IN IRELAND. Biology and Environment, 2009, 109, 207-220.	0.2	3
53	Modelling effects of spatial variability of saturated hydraulic conductivity on autocorrelated overland flow data: linear mixed model approach. Stochastic Environmental Research and Risk Assessment, 2008, 22, 67-82.	1.9	11
54	Generation of two-dimensionally variable saturated hydraulic conductivity fields: Model theory, verification and computer program. Computers and Geosciences, 2008, 34, 876-890.	2.0	15

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55	Development of neuro-fuzzy models to account for temporal and spatial variations in a lumped rainfallâ€"runoff model. Journal of Hydrology, 2008, 349, 277-290.	2.3	15
56	Statistical analysis of the effects on overland flow of spatial variability in soil hydraulic conductivity / Ánalyse statistique des effets de la variabilitÃ© spatiale de la conductivitÃ© hydraulique du sol sur l'Ã©coulement de surface. Hydrological Sciences Journal, 2008, 53, 387-400.	1.2	8
57	Response surface optimization of phosphorus species adsorption onto powdered alum sludge. Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering, 2008, 43, 1100-1107.	0.9	8
58	Systems Analysis â€" a new paradigm and decision support tools for the water framework directive. Hydrology and Earth System Sciences, 2008, 12, 739-749.	1.9	14
59	A comparison of SWAT, HSPF and SHETRAN/GOPC for modelling phosphorus export from three catchments in Ireland. Water Research, 2007, 41, 1065-1073.	5.3	89
60	Reuse of Aluminumâ€"based Water Treatment Sludge to Immobilize a Wide Range of Phosphorus Contamination: Equilibrium Study with Different Isotherm Models. Separation Science and Technology, 2007, 42, 2705-2721.	1.3	36
61	Highway runoff quality in Ireland. Journal of Environmental Monitoring, 2007, 9, 366.	2.1	27
62	Harmonic analysis of the stability of reverse routing in channels. Hydrology and Earth System Sciences, 2007, 11, 559-568.	1.9	14
63	Incremental distributed modelling investigation in a small agricultural catchment: 1. Overland flow with comparison with the unit hydrograph model. Hydrological Processes, 2007, 21, 80-91.	1.1	14
64	Incremental distributed modelling investigation in a small agricultural catchment: 2. Erosion and phosphorus transport. Hydrological Processes, 2007, 21, 92-102.	1.1	9
65	Effectiveness of a drinking-water treatment sludge in removing different phosphorus species from aqueous solution. Separation and Purification Technology, 2007, 55, 300-306.	3.9	162
66	Combined Hydraulic and Black-Box Models for Flood Forecasting in Urban Drainage Systems. Journal of Hydrologic Engineering - ASCE, 2006, 11, 589-596.	0.8	35
67	Functional networks in real-time flood forecastingâ€"a novel application. Advances in Water Resources, 2005, 28, 899-909.	1.7	55
68	Developing an independent, generic, phosphorus modelling component for use with grid-oriented, physically based distributed catchment models. Water Science and Technology, 2005, 51, 135-142.	1.2	6
69	Introduction to Decision Support Systems. , 2005, , 235-248.		1
70	Simulation of Hydrosalinity Behavior Under Skimming Wells. Irrigation and Drainage Systems, 2004, 18, 167-200.	0.5	6
71	Sensitivity of streamâ€"aquifer seepage to spatial variability of the saturated hydraulic conductivity of the aquifer. Journal of Hydrology, 2004, 293, 289-302.	2.3	29
72	Options for Skimming Fresh Groundwater in the Indus Basin of Pakistan: A Review. Journal of Groundwater Hydrology, 2003, 45, 259-278.	0.1	5

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73	Impact of a physically based soil water flow and soil-plant interaction representation for modeling large-scale land surface processes. Journal of Geophysical Research, 2002, 107, ACL 3-1-ACL 3-19.	3.3	100
74	Modelling stream–aquifer seepage in an alluvial aquifer: an improved loosing-stream package for MODFLOW. Journal of Hydrology, 2002, 264, 69-86.	2.3	82
75	Diagnostic Analysis of Farmers' Skimming Well Technologies in the Indus Basin of Pakistan. Irrigation and Drainage Systems, 2002, 16, 139-160.	0.5	11
76	Modeling Root Water Uptake in Hydrological and Climate Models. Bulletin of the American Meteorological Society, 2001, 82, 2797-2809.	1.7	330
77	Using radar information in hydrological modeling: COST 717 WG-1 activities. Physics and Chemistry of the Earth, 2000, 25, 1305-1310.	0.3	8
78	ELECTRE and Decision Support. , 2000, , .		71
79	Using ELECTRE III to Choose Route for Dublin Port Motorway. Journal of Transportation Engineering, 2000, 126, 313-323.	0.9	34
80	Sensitivity of surface fluxes to the number of layers in the soil model used in GCMs. Geophysical Research Letters, 2000, 27, 3329-3332.	1.5	47
81	A simple model for estimating the sensitivity of runoff to long-term changes in precipitation without a change in vegetation. Advances in Water Resources, 1999, 23, 153-163.	1.7	211
82	A new system for weighting environmental criteria for use within ELECTRE III. European Journal of Operational Research, 1998, 107, 552-563.	3.5	145
83	Choosing realistic values of indifference, preference and veto thresholds for use with environmental criteria within ELECTRE. European Journal of Operational Research, 1998, 107, 542-551.	3.5	152
84	Scaling effects on moisture fluxes at unvegetated land surfaces. Water Resources Research, 1997, 33, 2923-2927.	1.7	11
85	Unit hydrograph estimation with multiple events and prior information: I. Theory and a computer program. Hydrological Sciences Journal, 1992, 37, 429-443.	1.2	10
86	Unit hydrograph estimation with multiple events and prior information: II. Evaluation of the method. Hydrological Sciences Journal, 1992, 37, 445-462.	1.2	6
87	Unit hydrograph stability and linear algebra. Journal of Hydrology, 1989, 111, 377-390.	2.3	15
88	An efficient and robust method for estimating unit hydrograph ordinates. Journal of Hydrology, 1984, 70, 1-24.	2.3	54
89	Managing the small stream network for improved water quality, biodiversity and ecosystem services protection (SSNet). Research Ideas and Outcomes, 0, 5, .	1.0	6
90	<i>Preface</i> Towards practical applications in ensemble hydro-meteorological forecasting. Advances in Geosciences, 0, 29, 119-121.	12.0	3

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91	Assessing the applicability of the Revised Universal Soil Loss Equation (RUSLE) to Irish Catchments. Proceedings of the International Association of Hydrological Sciences, 0, 367, 99-105.	1.0	2