James Craig

List of Publications by Year in descending order

61 papers	1,226 citations	361045 20 h-index	414034 32 g-index
74 all docs	74 docs citations	74 times ranked	1355 citing authors

#	Article	IF	Citations
1	Simulating the cumulative effects of potential open-pit mining and climate change on streamflow and water quality in a mountainous watershed. Science of the Total Environment, 2022, 806, 150394.	3.9	5
2	The pie sharing problem: Unbiased sampling of N+1 summative weights. Environmental Modelling and Software, 2022, 148, 105282.	1.9	1
3	The sensitivity of simulated streamflow to individual hydrologic processes across North America. Nature Communications, 2022, 13, 455.	5.8	15
4	The Great Lakes Runoff Intercomparison Project Phase 4: the Great Lakes (GRIP-GL). Hydrology and Earth System Sciences, 2022, 26, 3537-3572.	1.9	27
5	Use of an Efficient Proxy Solution for the Hillslopeâ€Storage Boussinesq Problem in Upscaling of Subsurface Stormflow. Water Resources Research, 2021, 57, e2020WR029105.	1.7	4
6	Simultaneous Calibration of Hydrologic Model Structure and Parameters Using a Blended Model. Water Resources Research, 2021, 57, e2020WR029229.	1.7	14
7	Mimicry of a Conceptual Hydrological Model (HBV): What's in a Name?. Water Resources Research, 2021, 57, e2020WR029143.	1.7	7
8	Long-term climate-influenced land cover change in discontinuous permafrost peatland complexes. Hydrology and Earth System Sciences, 2021, 25, 3301-3317.	1.9	15
9	Great Lakes Runoff Intercomparison Project Phase 3: Lake Erie (GRIP-E). Journal of Hydrologic Engineering - ASCE, 2021, 26, .	0.8	12
10	Mechanisms of Discontinuous Permafrost Thaw in Peatlands. Journal of Geophysical Research F: Earth Surface, 2021, 126, e2021JF006204.	1.0	9
11	A Particle Tracking Algorithm for Arbitrary Unstructured Grids. Ground Water, 2020, 58, 19-26.	0.7	9
12	Reply to Comment on â€œA Particle Tracking Algorithm for Arbitrary Unstructured Gridsâ€• Ground Water, 2020, 58, 6-7.	0.7	1
13	A Semianalytical Interface Model of Soil Freeze/Thaw and Permafrost Evolution. Water Resources Research, 2020, 56, e2020WR027638.	1.7	6
14	Automatic Model Structure Identification for Conceptual Hydrologic Models. Water Resources Research, 2020, 56, e2019WR027009.	1.7	25
15	Current and future projections of glacier contribution to streamflow in the upper Athabasca River Basin. Canadian Water Resources Journal, 2020, 45, 324-344.	0.5	14
16	Subsurface flow measurements using passive flux meters in variablyâ€saturated coldâ€regions landscapes. Hydrological Processes, 2020, 34, 4541-4546.	1.1	1
17	Structural calibration of an semi-distributed hydrological model of the Liard River basin. Canadian Water Resources Journal, 2020, 45, 287-303.	0.5	7
18	Subwatershed-based lake and river routing products for hydrologic and land surface models applied over Canada. Canadian Water Resources Journal, 2020, 45, 237-251.	0.5	6

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19	Design, Construction, and Destruction in the Classroom: Experiential Learning with Earthen Dams. Journal of Hydraulic Engineering, 2020, 146, .	0.7	4
20	Flexible watershed simulation with the Raven hydrological modelling framework. Environmental Modelling and Software, 2020, 129, 104728.	1.9	62
21	Simultaneously determining global sensitivities of model parameters and model structure. Hydrology and Earth System Sciences, 2020, 24, 5835-5858.	1.9	26
22	A trust region approach for numerical modeling of non-isothermal phase change. Computational Geosciences, 2019, 23, 911-923.	1.2	3
23	A synthesis of three decades of hydrological research at Scotty Creek, NWT, Canada. Hydrology and Earth System Sciences, 2019, 23, 2015-2039.	1.9	30
24	Can Improved Flow Partitioning in Hydrologic Models Increase Biogeochemical Predictability?. Water Resources Research, 2019, 55, 2939-2960.	1.7	12
25	Taliks: A Tipping Point in Discontinuous Permafrost Degradation in Peatlands. Water Resources Research, 2019, 55, 9838-9857.	1.7	54
26	Closed Analytic Elements with Flexible Geometry. Ground Water, 2018, 56, 816-822.	0.7	1
27	Semi-analytical 3D solution for assessing radial collector well pumping impacts on groundwaterâ€“surface water interaction. Hydrology Research, 2018, 49, 17-26.	1.1	13
28	A theoretical extension of the soil freezing curve paradigm. Advances in Water Resources, 2018, 111, 319-328.	1.7	26
29	A diagnostic approach to constraining flow partitioning in hydrologic models using a multiobjective optimization framework. Water Resources Research, 2017, 53, 3279-3301.	1.7	22
30	Effective groundwater-surface water exchange at watershed scales. Hydrological Processes, 2016, 30, 1849-1861.	1.1	2
31	A priori discretization error metrics for distributed hydrologic modeling applications. Journal of Hydrology, 2016, 543, 873-891.	2.3	6
32	Are all runoff processes the same? Numerical experiments comparing a <scp>D</scp>arcyâ€<scp>R</scp>ichards solver to an overland flowâ€based approach for subsurface storm runoff simulation. Water Resources Research, 2015, 51, 10008-10028.	1.7	38
33	Assessing the performance of a semiâ€distributed hydrological model under various watershed discretization schemes. Hydrological Processes, 2015, 29, 4018-4031.	1.1	34
34	The hydrology of interconnected bog complexes in discontinuous permafrost terrains. Hydrological Processes, 2015, 29, 3831-3847.	1.1	45
35	A general analytical solution for steady flow in heterogeneous porous media. Water Resources Research, 2015, 51, 4184-4197.	1.7	7
36	An extended finite element method model for carbon sequestration. International Journal for Numerical Methods in Engineering, 2015, 102, 316-331.	1.5	7

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37	Impact of soil heterogeneity on the functioning of horizontal ground heat exchangers. Geothermics, 2014, 50, 35-43.	1.5	26
38	Changing hydrologic connectivity due to permafrost thaw in the lower Liard River valley, NWT, Canada. Hydrological Processes, 2014, 28, 4163-4178.	1.1	157
39	Semianalytical series solutions for three-dimensional groundwater-surface water interaction. Water Resources Research, 2014, 50, 3893-3906.	1.7	20
40	Series solutions for saturatedâ€“unsaturated flow in multi-layer unconfined aquifers. Advances in Water Resources, 2013, 60, 24-33.	1.7	23
41	The effects of dual porosity on transport and retardation in peat: A laboratory experiment. Canadian Journal of Soil Science, 2012, 92, 723-732.	0.5	65
42	Conceptual and numerical models for sustainable groundwater management in the Thaphra area, Chi River Basin, Thailand. Hydrogeology Journal, 2012, 20, 1355-1374.	0.9	9
43	Using the extended finite element method for simulation of transient well leakage in multilayer aquifers. Advances in Water Resources, 2011, 34, 1207-1214.	1.7	7
44	A simple expression for the bulk field capacity of a sloping soil horizon. Hydrological Processes, 2011, 25, 112-116.	1.1	15
45	Applicability of the Green-Ampt Infiltration Model with Shallow Boundary Conditions. Journal of Hydrologic Engineering - ASCE, 2011, 16, 266-273.	0.8	33
46	Modelling well leakage in multilayer aquifer systems using the extended finite element method. Finite Elements in Analysis and Design, 2010, 46, 504-513.	1.7	11
47	Series solutions for flow in stratified aquifers with natural geometry. Advances in Water Resources, 2010, 33, 48-54.	1.7	9
48	Runoffâ€“infiltration partitioning using an upscaled Greenâ€“Ampt solution. Hydrological Processes, 2010, 24, 2328-2334.	1.1	32
49	Coordinate mapping of analytical contaminant transport solutions to non-uniform flow fields. Advances in Water Resources, 2009, 32, 353-360.	1.7	9
50	Analytic elements for flow in harmonically heterogeneous aquifers. Water Resources Research, 2009, 45, .	1.7	9
51	Analytical solutions for 2D topography-driven flow in stratified and syncline aquifers. Advances in Water Resources, 2008, 31, 1066-1073.	1.7	19
52	Analytic-Element Modeling of Supraregional Groundwater Flow: Concepts and Tools for Automated Model Configuration. Journal of Hydrologic Engineering - ASCE, 2007, 12, 83-96.	0.8	8
53	Finite element transport modeling using analytic element flow solutions. Water Resources Research, 2006, 42, .	1.7	12
54	The Nested Superblock Approach for Regional-Scale Analytic Element Models. Ground Water, 2006, 44, 76-80.	0.7	8

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55	Pump-and-treat optimization using analytic element method flow models. Advances in Water Resources, 2006, 29, 760-775.	1.7	100
56	Analytical expressions for the hydraulic design of continuous permeable reactive barriers. Advances in Water Resources, 2006, 29, 99-111.	1.7	25
57	Finite difference modeling of contaminant transport using analytic element flow solutions. Advances in Water Resources, 2006, 29, 1075-1087.	1.7	29
58	Influence of numerical precision on the calibration of AEM-based groundwater flow models. Environmental Geology, 2005, 48, 57-67.	1.2	5
59	Analytical Models for the Design of Iron-Based Permeable Reactive Barriers. Journal of Environmental Engineering, ASCE, 2005, 131, 1589-1597.	0.7	19
60	Discretization of analytic element flow solutions for transport modeling. Developments in Water Science, 2004, 55, 381-391.	0.1	0
61	FREE CONVECTIVE DRAFT INDUCED BY THERMAL AND CONCENTRATION GRADIENTS INSIDE AN ISOTHERMAL, VERTICAL CYLINDERâ€. Chemical Engineering Communications, 1984, 27, 129-156.	1.5	0