

# James Craig

## List of Publications by Year in descending order

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Version: 2024-02-01

61  
papers

1,226  
citations

361413

20  
h-index

414414

32  
g-index

74  
all docs

74  
docs citations

74  
times ranked

1355  
citing authors

#	ARTICLE	IF	CITATIONS
1	Changing hydrologic connectivity due to permafrost thaw in the lower Liard River valley, NWT, Canada. <i>Hydrological Processes</i> , 2014, 28, 4163-4178.	2.6	157
2	Pump-and-treat optimization using analytic element method flow models. <i>Advances in Water Resources</i> , 2006, 29, 760-775.	3.8	100
3	The effects of dual porosity on transport and retardation in peat: A laboratory experiment. <i>Canadian Journal of Soil Science</i> , 2012, 92, 723-732.	1.2	65
4	Flexible watershed simulation with the Raven hydrological modelling framework. <i>Environmental Modelling and Software</i> , 2020, 129, 104728.	4.5	62
5	Taliks: A Tipping Point in Discontinuous Permafrost Degradation in Peatlands. <i>Water Resources Research</i> , 2019, 55, 9838-9857.	4.2	54
6	The hydrology of interconnected bog complexes in discontinuous permafrost terrains. <i>Hydrological Processes</i> , 2015, 29, 3831-3847.	2.6	45
7	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. <i>Water Resources Research</i> , 2015, 51, 10008-10028.	4.2	38
8	Assessing the performance of a semiâ€distributed hydrological model under various watershed discretization schemes. <i>Hydrological Processes</i> , 2015, 29, 4018-4031.	2.6	34
9	Applicability of the Green-Ampt Infiltration Model with Shallow Boundary Conditions. <i>Journal of Hydrologic Engineering - ASCE</i> , 2011, 16, 266-273.	1.9	33
10	Runoffâ€infiltration partitioning using an upscaled Greenâ€Ampt solution. <i>Hydrological Processes</i> , 2010, 24, 2328-2334.	2.6	32
11	A synthesis of three decades of hydrological research at Scotty Creek, NWT, Canada. <i>Hydrology and Earth System Sciences</i> , 2019, 23, 2015-2039.	4.9	30
12	Finite difference modeling of contaminant transport using analytic element flow solutions. <i>Advances in Water Resources</i> , 2006, 29, 1075-1087.	3.8	29
13	The Great Lakes Runoff Intercomparison Project Phase 4: the Great Lakes (GRIP-GL). <i>Hydrology and Earth System Sciences</i> , 2022, 26, 3537-3572.	4.9	27
14	Impact of soil heterogeneity on the functioning of horizontal ground heat exchangers. <i>Geothermics</i> , 2014, 50, 35-43.	3.4	26
15	A theoretical extension of the soil freezing curve paradigm. <i>Advances in Water Resources</i> , 2018, 111, 319-328.	3.8	26
16	Simultaneously determining global sensitivities of model parameters and model structure. <i>Hydrology and Earth System Sciences</i> , 2020, 24, 5835-5858.	4.9	26
17	Analytical expressions for the hydraulic design of continuous permeable reactive barriers. <i>Advances in Water Resources</i> , 2006, 29, 99-111.	3.8	25
18	Automatic Model Structure Identification for Conceptual Hydrologic Models. <i>Water Resources Research</i> , 2020, 56, e2019WR027009.	4.2	25

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19	Series solutions for saturated-unsaturated flow in multi-layer unconfined aquifers. <i>Advances in Water Resources</i> , 2013, 60, 24-33.	3.8	23
20	A diagnostic approach to constraining flow partitioning in hydrologic models using a multiobjective optimization framework. <i>Water Resources Research</i> , 2017, 53, 3279-3301.	4.2	22
21	Semianalytical series solutions for three-dimensional groundwater-surface water interaction. <i>Water Resources Research</i> , 2014, 50, 3893-3906.	4.2	20
22	Analytical Models for the Design of Iron-Based Permeable Reactive Barriers. <i>Journal of Environmental Engineering, ASCE</i> , 2005, 131, 1589-1597.	1.4	19
23	Analytical solutions for 2D topography-driven flow in stratified and syncline aquifers. <i>Advances in Water Resources</i> , 2008, 31, 1066-1073.	3.8	19
24	A simple expression for the bulk field capacity of a sloping soil horizon. <i>Hydrological Processes</i> , 2011, 25, 112-116.	2.6	15
25	Long-term climate-influenced land cover change in discontinuous permafrost peatland complexes. <i>Hydrology and Earth System Sciences</i> , 2021, 25, 3301-3317.	4.9	15
26	The sensitivity of simulated streamflow to individual hydrologic processes across North America. <i>Nature Communications</i> , 2022, 13, 455.	12.8	15
27	Current and future projections of glacier contribution to streamflow in the upper Athabasca River Basin. <i>Canadian Water Resources Journal</i> , 2020, 45, 324-344.	1.2	14
28	Simultaneous Calibration of Hydrologic Model Structure and Parameters Using a Blended Model. <i>Water Resources Research</i> , 2021, 57, e2020WR029229.	4.2	14
29	Semi-analytical 3D solution for assessing radial collector well pumping impacts on groundwater-surface water interaction. <i>Hydrology Research</i> , 2018, 49, 17-26.	2.7	13
30	Finite element transport modeling using analytic element flow solutions. <i>Water Resources Research</i> , 2006, 42, .	4.2	12
31	Can Improved Flow Partitioning in Hydrologic Models Increase Biogeochemical Predictability?. <i>Water Resources Research</i> , 2019, 55, 2939-2960.	4.2	12
32	Great Lakes Runoff Intercomparison Project Phase 3: Lake Erie (GRIP-E). <i>Journal of Hydrologic Engineering - ASCE</i> , 2021, 26, .	1.9	12
33	Modelling well leakage in multilayer aquifer systems using the extended finite element method. <i>Finite Elements in Analysis and Design</i> , 2010, 46, 504-513.	3.2	11
34	Coordinate mapping of analytical contaminant transport solutions to non-uniform flow fields. <i>Advances in Water Resources</i> , 2009, 32, 353-360.	3.8	9
35	Analytic elements for flow in harmonically heterogeneous aquifers. <i>Water Resources Research</i> , 2009, 45, .	4.2	9
36	Series solutions for flow in stratified aquifers with natural geometry. <i>Advances in Water Resources</i> , 2010, 33, 48-54.	3.8	9

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37	Conceptual and numerical models for sustainable groundwater management in the Thaphra area, Chi River Basin, Thailand. <i>Hydrogeology Journal</i> , 2012, 20, 1355-1374.	2.1	9
38	A Particle Tracking Algorithm for Arbitrary Unstructured Grids. <i>Ground Water</i> , 2020, 58, 19-26.	1.3	9
39	Mechanisms of Discontinuous Permafrost Thaw in Peatlands. <i>Journal of Geophysical Research F: Earth Surface</i> , 2021, 126, e2021JF006204.	2.8	9
40	The Nested Superblock Approach for Regional-Scale Analytic Element Models. <i>Ground Water</i> , 2006, 44, 76-80.	1.3	8
41	Analytic-Element Modeling of Supraregional Groundwater Flow: Concepts and Tools for Automated Model Configuration. <i>Journal of Hydrologic Engineering - ASCE</i> , 2007, 12, 83-96.	1.9	8
42	Using the extended finite element method for simulation of transient well leakage in multilayer aquifers. <i>Advances in Water Resources</i> , 2011, 34, 1207-1214.	3.8	7
43	A general analytical solution for steady flow in heterogeneous porous media. <i>Water Resources Research</i> , 2015, 51, 4184-4197.	4.2	7
44	An extended finite element method model for carbon sequestration. <i>International Journal for Numerical Methods in Engineering</i> , 2015, 102, 316-331.	2.8	7
45	Structural calibration of an semi-distributed hydrological model of the Liard River basin. <i>Canadian Water Resources Journal</i> , 2020, 45, 287-303.	1.2	7
46	Mimicry of a Conceptual Hydrological Model (HBV): What's in a Name?. <i>Water Resources Research</i> , 2021, 57, e2020WR029143.	4.2	7
47	A priori discretization error metrics for distributed hydrologic modeling applications. <i>Journal of Hydrology</i> , 2016, 543, 873-891.	5.4	6
48	A Semianalytical Interface Model of Soil Freeze/Thaw and Permafrost Evolution. <i>Water Resources Research</i> , 2020, 56, e2020WR027638.	4.2	6
49	Subwatershed-based lake and river routing products for hydrologic and land surface models applied over Canada. <i>Canadian Water Resources Journal</i> , 2020, 45, 237-251.	1.2	6
50	Influence of numerical precision on the calibration of AEM-based groundwater flow models. <i>Environmental Geology</i> , 2005, 48, 57-67.	1.2	5
51	Simulating the cumulative effects of potential open-pit mining and climate change on streamflow and water quality in a mountainous watershed. <i>Science of the Total Environment</i> , 2022, 806, 150394.	8.0	5
52	Design, Construction, and Destruction in the Classroom: Experiential Learning with Earthen Dams. <i>Journal of Hydraulic Engineering</i> , 2020, 146, .	1.5	4
53	Use of an Efficient Proxy Solution for the Hillslopeâ€™Storage Boussinesq Problem in Upscaling of Subsurface Stormflow. <i>Water Resources Research</i> , 2021, 57, e2020WR029105.	4.2	4
54	A trust region approach for numerical modeling of non-isothermal phase change. <i>Computational Geosciences</i> , 2019, 23, 911-923.	2.4	3

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55	Effective groundwater-surface water exchange at watershed scales. <i>Hydrological Processes</i> , 2016, 30, 1849-1861.	2.6	2
56	Closed Analytic Elements with Flexible Geometry. <i>Ground Water</i> , 2018, 56, 816-822.	1.3	1
57	Reply to Comment on "A Particle Tracking Algorithm for Arbitrary Unstructured Grids". <i>Ground Water</i> , 2020, 58, 6-7.	1.3	1
58	Subsurface flow measurements using passive flux meters in variably saturated regions and landscapes. <i>Hydrological Processes</i> , 2020, 34, 4541-4546.	2.6	1
59	The pie sharing problem: Unbiased sampling of N+1 summative weights. <i>Environmental Modelling and Software</i> , 2022, 148, 105282.	4.5	1
60	FREE CONVECTIVE DRAFT INDUCED BY THERMAL AND CONCENTRATION GRADIENTS INSIDE AN ISOTHERMAL, VERTICAL CYLINDER. <i>Chemical Engineering Communications</i> , 1984, 27, 129-156.	2.6	0
61	Discretization of analytic element flow solutions for transport modeling. <i>Developments in Water Science</i> , 2004, 55, 381-391.	0.1	0