Chris Spence

List of Publications by Year in descending order

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50 papers	2,183 citations	218592 26 h-index	223716 46 g-index
52 all docs	52 docs citations	52 times ranked	2067 citing authors

#	Article	IF	CITATIONS
1	Assessing hydrological sensitivity of grassland basins in the Canadian Prairies to climate using a basin classification-based virtual modelling approach. Hydrology and Earth System Sciences, 2022, 26, 1801-1819.	1.9	5
2	Application of dynamic contributing area for modelling the hydrologic response of the Assiniboine River Basin to a changing climate. Journal of Great Lakes Research, 2021, 47, 663-676.	0.8	17
3	The Baker Creek Research Watershed: Streamflow data highlighting the behaviour of an intermittent Canadian Shield stream through a wet–dry–wet cycle. Hydrological Processes, 2021, 35, e14038.	1.1	2
4	Fillâ€andâ€Spill: A Process Description of Runoff Generation at the Scale of the Beholder. Water Resources Research, 2021, 57, e2020WR027514.	1.7	43
5	Evaluating the Ubiquity of Thresholds in Rainfallâ€Runoff Response Across Contrasting Environments. Water Resources Research, 2021, 57, .	1.7	14
6	Synthesis of science: findings on Canadian Prairie wetland drainage. Canadian Water Resources Journal, 2021, 46, 229-241.	0.5	15
7	Fluvial CO 2 and CH 4 patterns across wildfireâ€disturbed ecozones of subarctic Canada: Current status and implications for future change. Global Change Biology, 2020, 26, 2304-2319.	4.2	22
8	Hydrological resilience to forest fire in the subarctic Canadian shield. Hydrological Processes, 2020, 34, 4940-4958.	1.1	8
9	Predicting Variable Contributing Areas, Hydrological Connectivity, and Solute Transport Pathways for a Canadian Prairie Basin. Water Resources Research, 2020, 56, e2020WR027984.	1.7	18
10	Western Canadian freshwater availability: current and future vulnerabilities. Environmental Reviews, 2020, 28, 528-545.	2.1	15
11	The Canadian Water Resource Vulnerability Index to Permafrost Thaw (CWRVI _{PT}). Arctic Science, 2020, 6, 437-462.	0.9	13
12	Prairie water: a global water futures project to enhance the resilience of prairie communities through sustainable water management. Canadian Water Resources Journal, 2019, 44, 115-126.	0.5	12
13	An Application of the Tâ€ŢEL Assessment Method to Evaluate Connectivity in a Lakeâ€Dominated Watershed after Drought. Journal of the American Water Resources Association, 2019, 55, 318-333.	1.0	6
14	Comparison of eventâ€specific rainfall–runoff responses and their controls in contrasting geographic areas. Hydrological Processes, 2019, 33, 1961-1979.	1.1	16
15	On the relationship between flood and contributing area. Hydrological Processes, 2019, 33, 1980-1992.	1.1	12
16	A watershed classification approach that looks beyond hydrology: application to a semi-arid, agricultural region in Canada. Hydrology and Earth System Sciences, 2019, 23, 3945-3967.	1.9	33
17	The Tâ€TEL Method for Assessing Water, Sediment, and Chemical Connectivity. Water Resources Research, 2018, 54, 634-662.	1.7	28
18	The impact of a loss of hydrologic connectivity on boreal lake thermal and evaporative regimes. Limnology and Oceanography, 2018, 63, 2028-2044.	1.6	5

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19	Seasonal and Geographic Variation in Dissolved Carbon Biogeochemistry of Rivers Draining to the Canadian Arctic Ocean and Hudson Bay. Journal of Geophysical Research G: Biogeosciences, 2018, 123, 3371-3386.	1.3	22
20	Hydrometeorological data from Baker Creek Research Watershed, Northwest Territories, Canada. Earth System Science Data, 2018, 10, 1753-1767.	3.7	8
21	Deployment of an unmanned aerial system to assist in mapping an intermittent stream. Hydrological Processes, 2016, 30, 493-500.	1.1	53
22	Testing the ability of a semidistributed hydrological model to simulate contributing area. Water Resources Research, 2016, 52, 4399-4415.	1.7	31
23	On the changes in long-term streamflow regimes in the North American Prairies. Hydrological Sciences Journal, 2016, 61, 64-78.	1.2	21
24	Evidence of a change in water chemistry in Canada's subarctic associated with enhanced winter streamflow. Journal of Geophysical Research G: Biogeosciences, 2015, 120, 113-127.	1.3	41
25	Refining understanding of hydrological connectivity in a boreal catchment. Hydrological Processes, 2015, 29, 3491-3503.	1.1	31
26	Influence of shallow groundwater–surface water interactions on the hydrological connectivity and water budget of a wetland complex. Hydrological Processes, 2015, 29, 3862-3877.	1.1	41
27	Towards an improved land surface scheme for prairie landscapes. Journal of Hydrology, 2014, 511, 105-116.	2.3	59
28	The process of winter streamflow generation in a subarctic Precambrian Shield catchment. Hydrological Processes, 2014, 28, 4179-4190.	1.1	19
29	Towards a unified thresholdâ€based hydrological theory: necessary components and recurring challenges. Hydrological Processes, 2013, 27, 313-318.	1.1	63
30	Storage dynamics simulations in prairie wetland hydrology models: evaluation and parameterization. Hydrological Processes, 2013, 27, 1875-1889.	1.1	95
31	An Overview of Temporary Stream Hydrology in Canada. Canadian Water Resources Journal, 2012, 37, 279-310.	0.5	75
32	On the behaviour of dynamic contributing areas and flood frequency curves in North American Prairie watersheds. Journal of Hydrology, 2012, 414-415, 364-373.	2.3	38
33	The Hydrological Functions of a Boreal Wetland. Wetlands, 2011, 31, 75-85.	0.7	20
34	Connectivity and runoff dynamics in heterogeneous basins. Hydrological Processes, 2011, 25, 3061-3075.	1.1	92
35	Storage dynamics and streamflow in a catchment with a variable contributing area. Hydrological Processes, 2010, 24, 2209-2221.	1.1	100
36	A Paradigm Shift in Hydrology: Storage Thresholds Across Scales Influence Catchment Runoff Generation. Geography Compass, 2010, 4, 819-833.	1.5	109

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37	Shallow soil moisture – ground thaw interactions and controls – Part 1: Spatiotemporal patterns and correlations over a subarctic landscape. Hydrology and Earth System Sciences, 2010, 14, 1375-1386.	1.9	20
38	Estimates of Canadian Arctic Archipelago runoff from observed hydrometric data. Journal of Hydrology, 2008, 362, 247-259.	2.3	14
39	The Processes, Patterns and Impacts of Low Flows Across Canada. Canadian Water Resources Journal, 2008, 33, 107-124.	0.5	50
40	Quantifying the Impact of Hydrometric Network Reductions on Regional Streamflow Prediction in Northern Canada. Canadian Water Resources Journal, 2007, 32, 1-20.	0.5	24
41	On the relation between dynamic storage and runoff: A discussion on thresholds, efficiency, and function. Water Resources Research, 2007, 43, .	1.7	115
42	Hydrology of subarctic Canadian Shield: heterogeneous headwater basins. Journal of Hydrology, 2006, 317, 138-154.	2.3	72
43	Hydrological processes and streamflow in a lake dominated watercourse. Hydrological Processes, 2006, 20, 3665-3681.	1.1	55
44	The Role of Northern Lakes in a Regional Energy Balance. Journal of Hydrometeorology, 2005, 6, 291-305.	0.7	141
45	Hydrology of subarctic Canadian shield: soil-filled valleys. Journal of Hydrology, 2003, 279, 151-166.	2.3	195
46	Energy Budget Processes of a Small Northern Lake. Journal of Hydrometeorology, 2003, 4, 694-701.	0.7	40
47	The Energy Budget of Canadian Shield Subarctic Terrain and Its Impact on Hillslope Hydrological Processes. Journal of Hydrometeorology, 2002, 3, 208-218.	0.7	20
48	Eddy covariance measurements of evaporation from Great Slave Lake, Northwest Territories, Canada. Water Resources Research, 2000, 36, 1069-1077.	1.7	165
49	The Effect of Storage on Runoff from a Headwater Subarctic Shield Basin. Arctic, 2000, 53, .	0.2	32
50	A six-year isotopic record of lake evaporation at a mine site in the Canadian subarctic: results and validation. Hydrological Processes, 1998, 12, 1779-1792.	1.1	34