

Donald Burn

List of Publications by Year in descending order

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115
papers

7,447
citations

57758

44
h-index

56724

83
g-index

115
all docs

115
docs citations

115
times ranked

5339
citing authors

#	ARTICLE	IF	CITATIONS
1	Detection of hydrologic trends and variability. Journal of Hydrology, 2002, 255, 107-122.	5.4	922
2	Short term streamflow forecasting using artificial neural networks. Journal of Hydrology, 1999, 214, 32-48.	5.4	415
3	Trends and variability in the hydrological regime of the Mackenzie River Basin. Journal of Hydrology, 2006, 319, 282-294.	5.4	270
4	Catchment similarity for regional flood frequency analysis using seasonality measures. Journal of Hydrology, 1997, 202, 212-230.	5.4	244
5	Hydrologic effects of climatic change in west-central Canada. Journal of Hydrology, 1994, 160, 53-70.	5.4	231
6	Trends in evaporation for the Canadian Prairies. Journal of Hydrology, 2007, 336, 61-73.	5.4	203
7	Hydrological trends and variability in the Liard River basin / Tendances hydrologiques et variabilit� dans le bassin de la rivi�re Liard. Hydrological Sciences Journal, 2004, 49, 53-67.	2.6	193
8	Wavelet analysis of variability in annual Canadian streamflows. Water Resources Research, 2004, 40, .	4.2	189
9	Assessing the effectiveness of hydrological similarity measures for flood frequency analysis. Journal of Hydrology, 2001, 241, 270-285.	5.4	181
10	Climatic influences on streamflow timing in the headwaters of the Mackenzie River Basin. Journal of Hydrology, 2008, 352, 225-238.	5.4	164
11	Artificial neural network ensembles and their application in pooled flood frequency analysis. Water Resources Research, 2004, 40, .	4.2	153
12	Climate change effects on the hydrologic regime within the Churchill-Nelson River Basin. Journal of Hydrology, 1997, 202, 263-279.	5.4	151
13	An appraisal of the "region of influence" approach to flood frequency analysis. Hydrological Sciences Journal, 1990, 35, 149-165.	2.6	144
14	Non-stationary pooled flood frequency analysis. Journal of Hydrology, 2003, 276, 210-223.	5.4	143
15	Detection of trends in hydrological extremes for Canadian watersheds. Hydrological Processes, 2010, 24, 1781-1790.	2.6	140
16	Flood frequency analysis for ungauged sites using a region of influence approach. Journal of Hydrology, 1994, 153, 1-21.	5.4	134
17	Estimation of hydrological parameters at ungauged catchments. Journal of Hydrology, 1993, 143, 429-454.	5.4	133
18	An entropy approach to data collection network design. Journal of Hydrology, 1994, 157, 307-324.	5.4	130

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19	Climate-driven variability in the occurrence of major floods across North America and Europe. <i>Journal of Hydrology</i> , 2017, 552, 704-717.	5.4	122
20	The formation of groups for regional flood frequency analysis. <i>Hydrological Sciences Journal</i> , 2000, 45, 97-112.	2.6	120
21	Numerical assessment of metamodelling strategies in computationally intensive optimization. <i>Environmental Modelling and Software</i> , 2012, 34, 67-86.	4.5	113
22	Changes of extreme drought and flood events in Iran. <i>Global and Planetary Change</i> , 2016, 144, 67-81.	3.5	111
23	Cluster Analysis as Applied to Regional Flood Frequency. <i>Journal of Water Resources Planning and Management - ASCE</i> , 1989, 115, 567-582.	2.6	107
24	Waste-Load Allocation Using Genetic Algorithms. <i>Journal of Water Resources Planning and Management - ASCE</i> , 2001, 127, 121-129.	2.6	100
25	Simulating climate change scenarios using an improved K-nearest neighbor model. <i>Journal of Hydrology</i> , 2006, 325, 179-196.	5.4	97
26	Time-varying nonstationary multivariate risk analysis using a dynamic Bayesian copula. <i>Water Resources Research</i> , 2016, 52, 2327-2349.	4.2	94
27	Optimization Modeling of Water Quality in an Uncertain Environment. <i>Water Resources Research</i> , 1985, 21, 934-940.	4.2	89
28	Changes in floods and flood regimes in Canada. <i>Canadian Water Resources Journal</i> , 2016, 41, 139-150.	1.2	85
29	Perceptions of flood risk: A case study of the Red River Flood of 1997. <i>Water Resources Research</i> , 1999, 35, 3451-3458.	4.2	82
30	Improved K-Nearest Neighbor Weather Generating Model. <i>Journal of Hydrologic Engineering - ASCE</i> , 2007, 12, 42-51.	1.9	80
31	Evaluation of regional flood frequency analysis with a region of influence approach. <i>Water Resources Research</i> , 1990, 26, 2257-2266.	4.2	79
32	Linkages between Regional Trends in Monthly Maximum Flows and Selected Climatic Variables. <i>Journal of Hydrologic Engineering - ASCE</i> , 2004, 9, 246-256.	1.9	73
33	Homogeneity testing: How homogeneous do heterogeneous cross-correlated regions seem?. <i>Journal of Hydrology</i> , 2008, 360, 67-76.	5.4	68
34	Reference hydrologic networks I. The status and potential future directions of national reference hydrologic networks for detecting trends. <i>Hydrological Sciences Journal</i> , 2012, 57, 1562-1579.	2.6	67
35	A Fuzzy C-Means approach for regionalization using a bivariate homogeneity and discordancy approach. <i>Journal of Hydrology</i> , 2011, 401, 231-239.	5.4	65
36	Analysis of the linkage between rain and flood regime and its application to regional flood frequency estimation. <i>Journal of Hydrology</i> , 2002, 261, 115-131.	5.4	64

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37	A spatiotemporal analysis of hydrological trends and variability in the Athabasca River region, Canada. <i>Journal of Hydrology</i> , 2014, 509, 333-342.	5.4	60
38	Regionalization of Catchments for Regional Flood Frequency Analysis. <i>Journal of Hydrologic Engineering - ASCE</i> , 1997, 2, 76-82.	1.9	56
39	Spatial and Temporal Variability of Canadian Seasonal Streamflows. <i>Journal of Climate</i> , 2005, 18, 191-210.	3.2	55
40	A nonstationary index-flood technique for estimating extreme quantiles for annual maximum streamflow. <i>Journal of Hydrology</i> , 2014, 519, 2040-2048.	5.4	55
41	An improved methodology for short-term operation of a single multipurpose reservoir. <i>Water Resources Research</i> , 1989, 25, 1-8.	4.2	51
42	The Processes, Patterns and Impacts of Low Flows Across Canada. <i>Canadian Water Resources Journal</i> , 2008, 33, 107-124.	1.2	50
43	The use of flood regime information in regional flood frequency analysis. <i>Hydrological Sciences Journal</i> , 2002, 47, 77-92.	2.6	49
44	A comparison of index flood estimation procedures for ungauged catchments. <i>Canadian Journal of Civil Engineering</i> , 2002, 29, 734-741.	1.3	48
45	Switching the pooling similarity distances: Mahalanobis for Euclidean. <i>Water Resources Research</i> , 2006, 42, .	4.2	44
46	Identification of changes in floods and flood regimes in Canada using a peaks over threshold approach. <i>Hydrological Processes</i> , 2016, 30, 3303-3314.	2.6	44
47	Local and Regional Trends in Monthly Maximum Flows in Southern British Columbia. <i>Canadian Water Resources Journal</i> , 2002, 27, 191-212.	1.2	43
48	Reference hydrologic networks II. Using reference hydrologic networks to assess climate-driven changes in streamflow. <i>Hydrological Sciences Journal</i> , 2012, 57, 1580-1593.	2.6	43
49	Delineation of groups for regional flood frequency analysis. <i>Journal of Hydrology</i> , 1988, 104, 345-361.	5.4	42
50	Regional Flood Frequency with Hierarchical Region of Influence. <i>Journal of Water Resources Planning and Management - ASCE</i> , 1996, 122, 245-252.	2.6	42
51	The use of resampling for estimating confidence intervals for single site and pooled frequency analysis / Utilisation d'un r�chantillonnage pour l'estimation des intervalles de confiance lors d'analyses fr�quentielles mono et multi-site. <i>Hydrological Sciences Journal</i> , 2003, 48, 25-38.	2.6	42
52	Long-lead probabilistic forecasting of streamflow using ocean-atmospheric and hydrological predictors. <i>Water Resources Research</i> , 2006, 42, .	4.2	41
53	Homogeneous pooling group delineation for flood frequency analysis using a fuzzy expert system with genetic enhancement. <i>Journal of Hydrology</i> , 2004, 291, 132-149.	5.4	39
54	Identification and quantification of streamflow trends on the Canadian Prairies. <i>Hydrological Sciences Journal</i> , 2008, 53, 538-549.	2.6	39

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55	Trends and Variability in Extreme Rainfall Events in British Columbia. Canadian Water Resources Journal, 2011, 36, 67-82.	1.2	39
56	A new selection metric for multiobjective hydrologic model calibration. Water Resources Research, 2014, 50, 7082-7099.	4.2	36
57	Water resources climate change projections using supervised nonlinear and multivariate soft computing techniques. Journal of Hydrology, 2016, 536, 119-132.	5.4	36
58	An approach to the rationalization of streamflow data collection networks. Journal of Hydrology, 1991, 122, 71-91.	5.4	34
59	Estimates of changes in design rainfall values for Canada. Hydrological Processes, 2013, 27, 1590-1599.	2.6	34
60	Changes in cold region flood regimes inferred from long-record reference gauging stations. Water Resources Research, 2017, 53, 2643-2658.	4.2	34
61	Risk-based parameter selection for short-term reservoir operation. Journal of Hydrology, 1992, 131, 269-291.	5.4	33
62	Analysis of trends in annual streamflow to the Arctic Ocean. Hydrological Processes, 2019, 33, 1143-1151.	2.6	32
63	Changes in flood events inferred from centennial length streamflow data records. Advances in Water Resources, 2018, 121, 333-349.	3.8	31
64	Sensitivity of reservoir operation performance to climatic change. Water Resources Management, 1996, 10, 463-478.	3.9	30
65	Risk-based performance criteria for real-time reservoir operation. Canadian Journal of Civil Engineering, 1991, 18, 36-42.	1.3	29
66	Evaluation of machine learning tools as a statistical downscaling tool: temperatures projections for multi-stations for Thames River Basin, Canada. Theoretical and Applied Climatology, 2012, 108, 519-534.	2.8	26
67	Comparison of automatic procedures for selecting flood peaks over threshold based on goodness-of-fit tests. Hydrological Processes, 2018, 32, 2874-2887.	2.6	26
68	A framework for regional estimation of intensity-duration-frequency (IDF) curves. Hydrological Processes, 2014, 28, 4209-4218.	2.6	25
69	The use of a genetic algorithm-based search strategy in geostatistics: application to a set of anisotropic piezometric head data. Computers and Geosciences, 2012, 41, 136-146.	4.2	22
70	Pooled flood frequency analysis: a comparison based on peaks-over-threshold and annual maximum series. Hydrological Sciences Journal, 2019, 64, 121-136.	2.6	22
71	Synchronicity in global flood responses. Journal of Hydrology, 1993, 144, 381-404.	5.4	20
72	Wind quantile estimation using a pooled frequency analysis approach. Journal of Wind Engineering and Industrial Aerodynamics, 2004, 92, 509-528.	3.9	20

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73	A nationwide regional flood frequency analysis at ungauged sites using ROI/GLS with copulas and super regions. <i>Journal of Hydrology</i> , 2018, 567, 191-202.	5.4	18
74	Identification of a preferred statistical distribution for at-site flood frequency analysis in Canada. <i>Canadian Water Resources Journal</i> , 2020, 45, 43-58.	1.2	16
75	Spatial patterns of homogeneous pooling groups for flood frequency analysis. <i>Hydrological Sciences Journal</i> , 2003, 48, 601-618.	2.6	15
76	Hydrological information for sustainable development. <i>Hydrological Sciences Journal</i> , 1997, 42, 481-492.	2.6	14
77	Site-focused nonparametric test of regional homogeneity based on flood regime. <i>Journal of Hydrology</i> , 2006, 318, 301-315.	5.4	14
78	Advances in projection of climate change impacts using supervised nonlinear dimensionality reduction techniques. <i>Climate Dynamics</i> , 2017, 48, 1329-1351.	3.8	14
79	Pooled frequency analysis for intensityâ€‘durationâ€‘frequency curve estimation. <i>Hydrological Processes</i> , 2019, 33, 2080-2094.	2.6	14
80	Linear stochastic optimization applied to biochemical oxygen demand â€‘ dissolved oxygen modelling. <i>Canadian Journal of Civil Engineering</i> , 1986, 13, 249-254.	1.3	11
81	A COMPARISON OF STREAMFLOW GENERATION MODELS FOR RESERVOIR CAPACITY-YIELD ANALYSIS. <i>Journal of the American Water Resources Association</i> , 1989, 25, 977-983.	2.4	11
82	Reservoir Management and Thermal Power Generation. <i>Journal of Water Resources Planning and Management - ASCE</i> , 1992, 118, 388-405.	2.6	11
83	Generation of Daily and Hourly Weather Variables for use in Climate Change Vulnerability Assessment. <i>Water Resources Management</i> , 2013, 27, 1533-1550.	3.9	11
84	A review of the Prediction in Ungauged Basins (PUB) decade in Canada. <i>Canadian Water Resources Journal</i> , 2013, 38, 253-262.	1.2	11
85	Statistical downscaling of temperatures under climate change scenarios for Thames river basin, Canada. <i>International Journal of Global Warming</i> , 2012, 4, 13.	0.5	10
86	Comparison of Estimation Methods for a Nonstationary Indexâ€‘Flood Model in Flood Frequency Analysis Using Peaks Over Threshold. <i>Water Resources Research</i> , 2019, 55, 9398-9416.	4.2	10
87	A temporal downscaling approach for sub-daily gridded extreme rainfall intensity estimation under climate change. <i>Journal of Hydrology: Regional Studies</i> , 2021, 35, 100811.	2.4	10
88	Application of nonlinear optimization to water quality. <i>Applied Mathematical Modelling</i> , 1987, 11, 438-446.	4.2	9
89	Use of tree ring reconstructed streamflows to assess drought. <i>Canadian Journal of Civil Engineering</i> , 2005, 32, 1114-1123.	1.3	9
90	A Comparison of Trends in Potential and Pan Evaporation for the Canadian Prairies. <i>Canadian Water Resources Journal</i> , 2006, 31, 173-184.	1.2	9

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91	Risk assessment of a water supply system under climate variability: a stochastic approach. Canadian Journal of Civil Engineering, 2011, 38, 252-262.	1.3	9
92	Delineation of precipitation regions using location and atmospheric variables in two Canadian climate regions: the role of attribute selection. Hydrological Sciences Journal, 2017, 62, 191-204.	2.6	9
93	Estimates of gridded relative changes in 24-h extreme rainfall intensities based on pooled frequency analysis. Journal of Hydrology, 2019, 577, 123940.	5.4	9
94	Analysis of changes in the Great Lakes hydro-climatic variables. Journal of Great Lakes Research, 2013, 39, 383-394.	1.9	8
95	Development of a framework for the selection of a reservoir operating policy. Canadian Journal of Civil Engineering, 1992, 19, 865-874.	1.3	7
96	RESERVOIR OPERATING POLICIES CONSIDERING RELEASE CHANGE. Civil Engineering and Environmental Systems, 1993, 10, 77-86.	0.2	7
97	Spatial characterization of drought events using synthetic hydrology. Canadian Journal of Civil Engineering, 1996, 23, 1231-1240.	1.3	7
98	Real-time Sampling Strategies for Estimating Nutrient Loadings. Journal of Water Resources Planning and Management - ASCE, 1990, 116, 727-741.	2.6	6
99	Interactive Computer Graphics for Expert System Verification. Journal of Water Resources Planning and Management - ASCE, 1993, 119, 518-530.	2.6	6
100	Trend Detection in the Presence of Positive and Negative Serial Correlation: A Comparison of Block Maxima and Peaks Over Threshold Data. Water Resources Research, 2021, 57, e2020WR028886.	4.2	5
101	Discussion of "Comparison of Multivariate Regression and Artificial Neural Networks for Peak Urban Water-Demand Forecasting: Evaluation of Different ANN Learning Algorithms" by Jan Adamowski and Christina Karapatakis. Journal of Hydrologic Engineering - ASCE, 2012, 17, 833-834.	1.9	4
102	A Canadian viewpoint on data, information and uncertainty in the context of prediction in ungauged basins. Hydrology Research, 2013, 44, 419-429.	2.7	4
103	Automatic feature selection and weighting for the formation of homogeneous groups for regional IDF estimation. Journal of Hydrology, 2019, 575, 292-307.	5.4	4
104	Technical guidelines for future intensity-duration-frequency curve estimation in Canada. Canadian Water Resources Journal, 2021, 46, 87-104.	1.2	4
105	Modeling Coliform Bacteria Subject to Chlorination. Journal of Environmental Engineering, ASCE, 1987, 113, 585-594.	1.4	2
106	Nonlinear optimization modeling of coliform bacteria. Water, Air, and Soil Pollution, 1987, 32, 183.	2.4	2
107	A simulation optimization algorithm for reservoir capacity calculation: the effect of inflow data set length. Canadian Journal of Civil Engineering, 1989, 16, 477-482.	1.3	2
108	Systems Theory for the civil engineer Experience with knowledge acquisition for an engineering expert system. Civil Engineering and Environmental Systems, 1991, 8, 13-18.	0.2	2

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109	River flow forecasting for multiple time periods. Canadian Journal of Civil Engineering, 1988, 15, 58-65.	1.3	1
110	A STAGE DISTRIBUTION APPROACH TO ESTIMATING ICE RELATED FLOODING PROBABILITIES. Journal of the American Water Resources Association, 1989, 25, 953-960.	2.4	1
111	Application of Kriging to surface water level estimation. Canadian Journal of Civil Engineering, 1992, 19, 181-185.	1.3	1
112	Probabilistic design of a riverine early warning source water monitoring systemA paper submitted to the Journal of Environmental Engineering and Science.. Canadian Journal of Civil Engineering, 2009, 36, 1095-1106.	1.3	1
113	Delineation of precipitation regions in two Canadian study areas: the role of the temporal resolution of the precipitation data. Hydrological Sciences Journal, 2017, 62, 2061-2071.	2.6	1
114	GENERATING ROBUST SOLUTIONS: A WATER QUALITY MANAGEMENT EXAMPLE. Civil Engineering and Environmental Systems, 1995, 12, 273-286.	0.2	0
115	Reply to the discussion by Markiewicz et al.. Journal of Hydrology, 2006, 331, 367-368.	5.4	0