

Alain N Rousseau

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/4042353/publications.pdf>

Version: 2024-02-01

98
papers

2,146
citations

236925

25
h-index

276875

41
g-index

106
all docs

106
docs citations

106
times ranked

2532
citing authors

#	ARTICLE	IF	CITATIONS
1	Assessing environmental control strategies in cage-free aviary housing systems: Egg production analysis and Random Forest modeling. <i>Computers and Electronics in Agriculture</i> , 2022, 196, 106854.	7.7	5
2	Are spatial distribution and aggregation of wetlands reliable indicators of stream flow mitigation?. <i>Journal of Hydrology</i> , 2022, 608, 127646.	5.4	5
3	Performance of Various Filtering Media for the Treatment of Cow Manure from Exercise Pens: A Laboratory Study. <i>Water (Switzerland)</i> , 2022, 14, 1912.	2.7	1
4	Grass barriers for mitigating diffuse pollution within a source water area - A case study of Northeast China. <i>Agricultural Water Management</i> , 2021, 243, 106461.	5.6	4
5	Temporal and Local Heterogeneities of Water Table Depth under Different Agricultural Water Management Conditions. <i>Water (Switzerland)</i> , 2021, 13, 2148.	2.7	2
6	River Damming Reduces Wetland Function in Regulating Flow. <i>Journal of Water Resources Planning and Management - ASCE</i> , 2021, 147, .	2.6	6
7	Assessing Environmental Control Strategies in Cage-Free Egg Production Systems: Effect on Spatial Occupancy and Natural Behaviors. <i>Animals</i> , 2021, 11, 17.	2.3	3
8	Sensitivity analysis of the Pesticide in Water Calculator model for applications in the Pampa region of Argentina. <i>Science of the Total Environment</i> , 2020, 698, 134232.	8.0	22
9	Impacts of high precipitation on the energy and water budgets of a humid boreal forest. <i>Agricultural and Forest Meteorology</i> , 2020, 280, 107813.	4.8	23
10	Quantitative assessment on basin-scale hydrological services of wetlands. <i>Science China Earth Sciences</i> , 2020, 63, 279-291.	5.2	8
11	A dual isotopic framework for identifying nitrate sources in surface runoff in a small agricultural watershed, northeast China. <i>Journal of Cleaner Production</i> , 2020, 246, 119074.	9.3	31
12	Quantifying streamflow regulation services of wetlands with an emphasis on quickflow and baseflow responses in the Upper Nenjiang River Basin, Northeast China. <i>Journal of Hydrology</i> , 2020, 583, 124565.	5.4	14
13	Seasonal contributions of water and pollutants to Lake St. Charles, a drinking water reservoir. <i>Canadian Water Resources Journal</i> , 2020, 45, 125-143.	1.2	4
14	Application and Evaluation of a Two-Wavelength Scintillometry System for Operation in a Complex Shallow Boreal-Forested Valley. <i>Boundary-Layer Meteorology</i> , 2020, 174, 341-370.	2.3	9
15	Automated Mapping of Water Table for Cranberry Subirrigation Management: Comparison of Three Spatial Interpolation Methods. <i>Water (Switzerland)</i> , 2020, 12, 3322.	2.7	11
16	What is the Trade-Off between Snowpack Stratification and Simulated Snow Water Equivalent in a Physically-Based Snow Model?. <i>Water (Switzerland)</i> , 2020, 12, 3449.	2.7	3
17	Agricultural Hydroinformatics: A Blueprint for an Emerging Framework to Foster Water Management-Centric Sustainability Transitions in Farming Systems. <i>Frontiers in Water</i> , 2020, 2, .	2.3	2
18	Mid-21st century anthropogenic changes in extreme precipitation and snowpack projections over Newfoundland. <i>Canadian Water Resources Journal</i> , 2020, 45, 216-236.	1.2	3

#	ARTICLE	IF	CITATIONS
19	Machine Learning vs. Physics-Based Modeling for Real-Time Irrigation Management. <i>Frontiers in Water</i> , 2020, 2, .	2.3	24
20	On how wetlands can provide flood resilience in a large river basin: A case study in Nenjiang river Basin, China. <i>Journal of Hydrology</i> , 2020, 587, 125012.	5.4	26
21	Development of a steady-state model to predict daily water table depth and root zone soil matric potential of a cranberry field with a subirrigation system. <i>Agricultural Water Management</i> , 2019, 213, 1016-1027.	5.6	6
22	Development and evaluation of a hydrologic data-assimilation scheme for short-range flow and inflow forecasts in a data-sparse high-latitude region using a distributed model and ensemble Kalman filtering. <i>Advances in Water Resources</i> , 2019, 130, 198-220.	3.8	11
23	Evaluating the effects of BMPs on agricultural contaminants using a novel method accounting for uncertainty in water flow and contaminant loads. <i>Canadian Water Resources Journal</i> , 2019, 44, 263-279.	1.2	3
24	Phosphorus source driving the soil microbial interactions and improving sugarcane development. <i>Scientific Reports</i> , 2019, 9, 4400.	3.3	28
25	Synchronized generation of high-resolution gridded precipitation and temperature fields. <i>Journal of Hydrology</i> , 2019, 573, 631-647.	5.4	1
26	Identification of the alteration of riparian wetland on soil properties, enzyme activities and microbial communities following extreme flooding. <i>Geoderma</i> , 2019, 337, 825-833.	5.1	39
27	What would have been the impacts of wetlands on low flow support and high flow attenuation under steady state land cover conditions?. <i>Journal of Environmental Management</i> , 2019, 234, 448-457.	7.8	27
28	Hydrological assessment of meteorological network density through data assimilation simulation. <i>Journal of Hydrology</i> , 2019, 569, 844-858.	5.4	8
29	Surface Water Quantity for Drinking Water during Low Flows - Sensitivity Assessment Solely from Climate Data. <i>Water Resources Management</i> , 2019, 33, 369-385.	3.9	2
30	Equifinality and automatic calibration: What is the impact of hypothesizing an optimal parameter set on modelled hydrological processes?. <i>Canadian Water Resources Journal</i> , 2018, 43, 47-67.	1.2	16
31	Development of a methodology to assess future trends in low flows at the watershed scale using solely climate data. <i>Journal of Hydrology</i> , 2018, 557, 774-790.	5.4	19
32	Water budget, performance of evapotranspiration formulations, and their impact on hydrological modeling of a small boreal peatland-dominated watershed. <i>Canadian Journal of Earth Sciences</i> , 2018, 55, 206-220.	1.3	6
33	Mapping Wetlands and Land Cover Change with Landsat Archives: The Added Value of Geomorphologic Data. <i>Canadian Journal of Remote Sensing</i> , 2018, 44, 337-356.	2.4	6
34	Solar radiation transmittance of a boreal balsam fir canopy: Spatiotemporal variability and impacts on growing season hydrology. <i>Agricultural and Forest Meteorology</i> , 2018, 263, 1-14.	4.8	19
35	Spatio-temporal patterns of soil organic carbon and pH in relation to environmental factors—A case study of the Black Soil Region of Northeastern China. <i>Agriculture, Ecosystems and Environment</i> , 2017, 245, 22-31.	5.3	90
36	Rethinking environment control strategy of confined animal housing systems through precision livestock farming. <i>Biosystems Engineering</i> , 2017, 155, 96-123.	4.3	105

#	ARTICLE	IF	CITATIONS
37	Probable maximum flood in a changing climate: An overview for Canadian basins. <i>Journal of Hydrology: Regional Studies</i> , 2017, 13, 11-25.	2.4	25
38	The added value of stochastic spatial disaggregation for short-term rainfall forecasts currently available in Canada. <i>Journal of Hydrology</i> , 2017, 554, 507-516.	5.4	4
39	Modeling of subsurface agricultural drainage using two hydrological models with different conceptual approaches as well as dimensions and spatial scales. <i>Canadian Water Resources Journal</i> , 2017, 42, 38-53.	1.2	13
40	Assessment of the Impact of Subsurface Agricultural Drainage on Soil Water Storage and Flows of a Small Watershed. <i>Water (Switzerland)</i> , 2016, 8, 326.	2.7	13
41	Assessment of Micro-Basin Tillage as a Soil and Water Conservation Practice in the Black Soil Region of Northeast China. <i>PLoS ONE</i> , 2016, 11, e0152313.	2.5	20
42	Assessment of the impact of spatio-temporal attributes of wetlands on stream flows using a hydrological modelling framework: a theoretical case study of a watershed under temperate climatic conditions. <i>Hydrological Processes</i> , 2016, 30, 1768-1781.	2.6	43
43	Modeling the sediment yield and the impact of vegetated filters using an event-based soil erosion model-a case study of a small Canadian watershed. <i>Hydrological Processes</i> , 2016, 30, 2835-2850.	2.6	11
44	Assessment of the impact of pools on the water isotopic signature of a boreal patterned peatland. <i>Hydrological Processes</i> , 2016, 30, 1292-1307.	2.6	8
45	Evaluation of probable maximum snow accumulation: Development of a methodology for climate change studies. <i>Journal of Hydrology</i> , 2016, 537, 74-85.	5.4	15
46	Can isolated and riparian wetlands mitigate the impact of climate change on watershed hydrology? A case study approach. <i>Journal of Environmental Management</i> , 2016, 184, 327-339.	7.8	39
47	Open science in practice: Learning integrated modeling of coupled surfaceâ€subsurface flow processes from scratch. <i>Earth and Space Science</i> , 2016, 3, 190-206.	2.6	17
48	Assessing the long-term hydrological services provided by wetlands under changing climate conditions: A case study approach of a Canadian watershed. <i>Journal of Hydrology</i> , 2016, 541, 1287-1302.	5.4	27
49	Integrated assessment of climate change impact on surface runoff contamination by pesticides. <i>Integrated Environmental Assessment and Management</i> , 2016, 12, 559-571.	2.9	15
50	Floods and water quality in Canada: A review of the interactions with urbanization, agriculture and forestry. <i>Canadian Water Resources Journal</i> , 2016, 41, 273-287.	1.2	28
51	Applicability of the Bulk-Transfer Approach to Estimate Evapotranspiration from Boreal Peatlands. <i>Journal of Hydrometeorology</i> , 2015, 16, 1521-1539.	1.9	5
52	Mosaic surface storages of a small boreal catchment. <i>Hydrological Processes</i> , 2015, 29, 845-858.	2.6	8
53	Integrating isolated and riparian wetland modules in the PHYSITEL/HYDROTEL modelling platform: model performance and diagnosis. <i>Hydrological Processes</i> , 2015, 29, 4683-4702.	2.6	31
54	Evaluating the Impact of the Spatial Distribution of Land Management Practices on Water Erosion: Case Study of a Mediterranean Catchment. <i>Journal of Hydrologic Engineering - ASCE</i> , 2015, 20, .	1.9	7

#	ARTICLE	IF	CITATIONS
55	Stochastic spatial disaggregation of extreme precipitation to validate a regional climate model and to evaluate climate change impacts over a small watershed. <i>Hydrology and Earth System Sciences</i> , 2014, 18, 1695-1704.	4.9	8
56	Analyse de sensibilit� globale du mod�le CATHY aux propri�t�s hydrodynamiques du sol d�un micro-bassin agricole drain�. <i>Hydrological Sciences Journal</i> , 2014, 59, 1606-1623.	2.6	9
57	Automated Soil Lysimeter for Determination of Actual Evapotranspiration of a Bog in Quebec, Canada. <i>Journal of Hydrologic Engineering - ASCE</i> , 2014, 19, 60-68.	1.9	3
58	Development of a methodology to evaluate probable maximum precipitation (PMP) under changing climate conditions: Application to southern Quebec, Canada. <i>Journal of Hydrology</i> , 2014, 519, 3094-3109.	5.4	58
59	An extended riparian buffer strip concept for soil conservation and stream protection in an agricultural riverine area of the La Chevroti�re River watershed, Qu�bec, Canada, using remote sensing and GIS techniques. <i>Canadian Water Resources Journal</i> , 2014, 39, 285-301.	1.2	5
60	Load Estimation Method Using Distributions with Covariates: A Comparison with Commonly Used Estimation Methods. <i>Journal of the American Water Resources Association</i> , 2014, 50, 791-804.	2.4	3
61	Implementation of an automatic calibration procedure for HYDROTEL based on prior OAT sensitivity and complementary identifiability analysis. <i>Hydrological Processes</i> , 2014, 28, 3947-3961.	2.6	31
62	Modelling snow water equivalent and spring runoff in a boreal watershed, James Bay, Canada. <i>Hydrological Processes</i> , 2014, 28, 5991-6005.	2.6	10
63	Seasonal and monthly hydrological budgets of a fen-dominated forested watershed, James Bay region, Quebec. <i>Hydrological Processes</i> , 2013, 27, 1365-1378.	2.6	10
64	Modeling the effects of agricultural BMPs on sediments, nutrients, and water quality of the Beaurivage River watershed (Quebec, Canada). <i>Canadian Water Resources Journal</i> , 2013, 38, 99-120.	1.2	39
65	Recommendations for riparian buffer widths based on field surveys of erosion processes on steep cultivated slopes. <i>Canadian Water Resources Journal</i> , 2013, 38, 263-279.	1.2	11
66	Hydrological modelling of <i>Toxoplasma gondii</i> oocysts transport to investigate contaminated snowmelt runoff as a potential source of infection for marine mammals in the Canadian Arctic. <i>Journal of Environmental Management</i> , 2013, 127, 150-161.	7.8	23
67	Implementation of a Root Water Extraction Module in CATHY: Comparison of Four Empirical Root-density Distribution Models. <i>Procedia Environmental Sciences</i> , 2013, 19, 57-66.	1.4	4
68	Summer methane fluxes from a boreal bog in northern Quebec, Canada, using eddy covariance measurements. <i>Atmospheric Environment</i> , 2013, 81, 464-474.	4.1	38
69	Development of VFDM: a riparian vegetated filter dimensioning model for agricultural watersheds. <i>Canadian Water Resources Journal</i> , 2013, 38, 169-184.	1.2	10
70	The challenges of integration and related research issues to support sustainable water resources management in Qu�bec, Canada. <i>International Journal of Water</i> , 2013, 7, 267.	0.1	1
71	SPATIOTEMPORAL DYNAMICS OF TOXOPLASMA GONDII INFECTION IN CANADIAN LYNX (LYNX CANADENSIS) IN WESTERN QU�BEC, CANADA. <i>Journal of Wildlife Diseases</i> , 2013, 49, 39-48.	0.8	22
72	Fate and Transport of <i>Toxoplasma gondii</i> Oocysts in Seasonally Snow Covered Watersheds: A Conceptual Framework from a Melting Snowpack to the Canadian Arctic Coasts. <i>International Journal of Environmental Research and Public Health</i> , 2013, 10, 994-1005.	2.6	29

#	ARTICLE	IF	CITATIONS
73	Bayesian Uncertainty Analysis of the Distributed Hydrological Model HYDROTEL. Journal of Hydrologic Engineering - ASCE, 2012, 17, 1021-1032.	1.9	42
74	A Hydrological Modeling Framework for Defining Achievable Performance Standards for Pesticides. Journal of Environmental Quality, 2012, 41, 52-63.	2.0	15
75	Risk of Phosphorus Desorption from Canadian Agricultural Land: 25-Year Temporal Trend. Journal of Environmental Quality, 2012, 41, 1402-1412.	2.0	17
76	Algae-based Biomonitoring: Predicting Diatom Reference Communities in Unpolluted Streams using Classification Trees, Random Forests, and Artificial Neural Networks. Water Quality Research Journal of Canada, 2010, 45, 413-425.	2.7	6
77	Validation of the Meteorological Outputs of the Canadian Regional Climate Model Using a Kriging Method: Application to Southern Quebec. Canadian Water Resources Journal, 2010, 35, 259-280.	1.2	2
78	Defining ecological thresholds to determine class boundaries in a bioassessment tool: The case of the Eastern Canadian Diatom Index (IDEC). Ecological Indicators, 2010, 10, 980-989.	6.3	33
79	Are Current Phosphorus Risk Indicators Useful to Predict the Quality of Surface Waters in Southern Manitoba, Canada?. Journal of Environmental Quality, 2009, 38, 2096-2105.	2.0	33
80	Implementation of a Peatland-Specific Water Budget Algorithm in HYDROTEL. Canadian Water Resources Journal, 2009, 34, 349-364.	1.2	19
81	Caractérisation des propriétés de rétention hydrique et de conductivité hydraulique dans les sols boréaux de la baie de James : présentation d'une démarche expérimentale et de résultats préliminaires / Characterization of Water Retention and Hydraulic Conductivity in Boreal Soils of the James Bay Region: Presentation of an Experimental Protocol and Preliminary Results. Canadian Water Resources Journal, 2009, 34, 329-348.	1.2	5
82	Assessing the Effects of Historical Land Cover Changes on Runoff and Low Flows Using Remote Sensing and Hydrological Modeling. Journal of Hydrologic Engineering - ASCE, 2009, 14, 575-587.	1.9	36
83	Distribution and assessment of surface water contamination by application of chemometric and deterministic models. Journal of Hydrology, 2009, 369, 416-426.	5.4	19
84	Changes in stream water quality due to logging of the boreal forest in the Montmorency Forest, Québec. Hydrological Processes, 2009, 23, 764-776.	2.6	28
85	Rainfall peak flow response to clearcutting 50% of three small watersheds in a boreal forest, Montmorency Forest, Québec. Journal of Hydrology, 2008, 352, 67-76.	5.4	19
86	Assessing the Effect of Climate Change on River Flow Using General Circulation Models and Hydrological Modelling – Application to the Chaudière River, Québec, Canada. Canadian Water Resources Journal, 2008, 33, 73-94.	1.2	37
87	Selecting a calculation method to estimate sediment and nutrient loads in streams: Application to the Beauvillage River (Québec, Canada). Journal of Hydrology, 2006, 326, 295-310.	5.4	191
88	Selecting a Pesticide Fate Model at the Watershed Scale Using a Multi-criteria Analysis. Water Quality Research Journal of Canada, 2006, 41, 283-295.	2.7	33
89	An Environmental Benefit-Cost Analysis Case Study of Nutrient Management in an Agricultural Watershed. Canadian Water Resources Journal, 2006, 31, 105-122.	1.2	9
90	Information technologies in a wider perspective: integrating management functions across the urban-rural interface. Environmental Modelling and Software, 2005, 20, 443-455.	4.5	25

#	ARTICLE	IF	CITATIONS
91	Usages et approvisionnement en eau dans le sud du Qubec Niveau des connaissances et axes de recherche privilgier dans une perspective de changements climatiques. Canadian Water Resources Journal, 2004, 29, 121-134.	1.2	11
92	Validation and Use of a Semidistributed Hydrological Modeling System to Predict Short-Term Effects of Clear-Cutting on a Watershed Hydrological Regime. Earth Interactions, 2004, 8, 1-19.	1.5	23
93	A Benefit-Cost Framework to Evaluate the Impact of Legislation Supporting Reduction of Agricultural Pollution at the Watershed Level. , 2004, , 123-142.		3
94	A process-oriented, multiple-objective calibration strategy accounting for model structure. Water Science and Application, 2003, , 153-163.	0.3	33
95	Development of a risk-based TMDL assessment approach using the integrated modeling system GIBSI. Water Science and Technology, 2002, 45, 317-324.	2.5	11
96	Determination of the drainage structure of a watershed using a digital elevation model and a digital river and lake network. Journal of Hydrology, 2001, 240, 225-242.	5.4	241
97	Utilisation des technologies gÃ©omatiques pour spatialiser le facteur K dâ€™Ã©rodabilitÃ© des sols du bassin versant de la riviÃ©re ChaudiÃ©re, QuÃ©bec. Canadian Journal of Soil Science, 2001, 81, 423-437.	1.2	6
98	A watershed-based system for the integrated management of surface water quality: the GIBSI system. Water Science and Technology, 1997, 36, 381-387.	2.5	11