

Alain Royer

List of Publications by Year in descending order

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Version: 2024-02-01

64
papers

1,945
citations

279798

23
h-index

265206

42
g-index

65
all docs

65
docs citations

65
times ranked

1652
citing authors

#	ARTICLE	IF	CITATIONS
1	Characterizing tundra snow sub-pixel variability to improve brightness temperature estimation in satellite SWE retrievals. <i>Cryosphere</i> , 2022, 16, 87-101.	3.9	7
2	High-resolution snow depth prediction using Random Forest algorithm with topographic parameters: A case study in the Greiner watershed, Nunavut. <i>Hydrological Processes</i> , 2022, 36, .	2.6	4
3	Retrieving dry snow stratigraphy using a versatile low-cost frequency modulated continuous wave (FMCW) K-band radar. <i>Physical Geography</i> , 2022, 43, 308-332.	1.4	3
4	Potential of X-band polarimetric synthetic aperture radar co-polar phase difference for arctic snow depth estimation. <i>Cryosphere</i> , 2022, 16, 2163-2181.	3.9	2
5	The Microwave Snow Grain Size: A New Concept to Predict Satellite Observations Over Snow-Covered Regions. <i>AGU Advances</i> , 2022, 3, .	5.4	7
6	Soil dielectric characterization during freeze-thaw transitions using L-band coaxial and soil moisture probes. <i>Hydrology and Earth System Sciences</i> , 2021, 25, 1117-1131.	4.9	10
7	New northern snowpack classification linked to vegetation cover on a latitudinal mega-transect across northeastern Canada. <i>Ecoscience</i> , 2021, 28, 225-242.	1.4	19
8	Improved Simulation of Arctic Circumpolar Land Area Snow Properties and Soil Temperatures. <i>Frontiers in Earth Science</i> , 2021, 9, .	1.8	13
9	Review article: Performance assessment of radiation-based field sensors for monitoring the water equivalent of snow cover (SWE). <i>Cryosphere</i> , 2021, 15, 5079-5098.	3.9	8
10	L-Band response to freeze/thaw in a boreal forest stand from ground- and tower-based radiometer observations. <i>Remote Sensing of Environment</i> , 2020, 237, 111542.	11.0	16
11	Low Cost and Compact FMCW 24 GHz Radar Applications for Snowpack and Ice Thickness Measurements. <i>Sensors</i> , 2020, 20, 3909.	3.8	16
12	Improvement of microwave emissivity parameterization of frozen Arctic soils using roughness measurements derived from photogrammetry. <i>International Journal of Digital Earth</i> , 2020, , 1-17.	3.9	7
13	Arctic and subarctic snow microstructure analysis for microwave brightness temperature simulations. <i>Remote Sensing of Environment</i> , 2020, 242, 111754.	11.0	17
14	Presenting Snow Grain Size and Shape Distributions in Northern Canada Using a New Photographic Device Allowing 2D and 3D Representation of Snow Grains. <i>Frontiers in Earth Science</i> , 2020, 7, .	1.8	8
15	Timing and spatial variability of fall soil freezing in boreal forest and its effect on SMAP L-band radiometer measurements. <i>Remote Sensing of Environment</i> , 2019, 231, 111230.	11.0	9
16	Effect of snow microstructure variability on Ku-band radar snow water equivalent retrievals. <i>Cryosphere</i> , 2019, 13, 3045-3059.	3.9	23
17	In-situ passive microwave emission model parameterization of sub-arctic frozen organic soils. <i>Remote Sensing of Environment</i> , 2018, 205, 112-118.	11.0	12
18	Meteorological inventory of rain-on-snow events in the Canadian Arctic Archipelago and satellite detection assessment using passive microwave data. <i>Physical Geography</i> , 2018, 39, 428-444.	1.4	11

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19	Assimilation of passive microwave AMSR-2 satellite observations in a snowpack evolution model over northeastern Canada. <i>Hydrology and Earth System Sciences</i> , 2018, 22, 5711-5734.	4.9	24
20	Snow-Covered Soil Temperature Retrieval in Canadian Arctic Permafrost Areas, Using a Land Surface Scheme Informed with Satellite Remote Sensing Data. <i>Remote Sensing</i> , 2018, 10, 1703.	4.0	10
21	Snowex 2017 In-Situ Passive Microwave Measurements: Analysis of WET Snow Microwave Emission. , 2018, , .		0
22	Modelling the L-Band Snow-Covered Surface Emission in a Winter Canadian Prairie Environment. <i>Remote Sensing</i> , 2018, 10, 1451.	4.0	8
23	Assessment of the Barren Ground Caribou Die-off During Winter 2015-2016 Using Passive Microwave Observations. <i>Geophysical Research Letters</i> , 2018, 45, 4908-4916.	4.0	7
24	Simulation and Assimilation of Passive Microwave Data Using a Snowpack Model Coupled to a Calibrated Radiative Transfer Model Over Northeastern Canada. <i>Water Resources Research</i> , 2018, 54, 4823-4848.	4.2	20
25	Comparison of commonly-used microwave radiative transfer models for snow remote sensing. <i>Remote Sensing of Environment</i> , 2017, 190, 247-259.	11.0	43
26	Analysis of snow-vegetation interactions in the low Arctic-Subarctic transition zone (northeastern) Tj ETQq0 0 0 rgBT/Overlogg 10 Tf 50	1.4	23
27	Response of L-Band brightness temperatures to freeze/thaw and snow dynamics in a prairie environment from ground-based radiometer measurements. <i>Remote Sensing of Environment</i> , 2017, 191, 67-80.	11.0	50
28	Modelling the passive microwave signature from land surfaces: A review of recent results and application to the L-band SMOS & SMAP soil moisture retrieval algorithms. <i>Remote Sensing of Environment</i> , 2017, 192, 238-262.	11.0	323
29	Validation of GlobSnow-2 snow water equivalent over Eastern Canada. <i>Remote Sensing of Environment</i> , 2017, 194, 264-277.	11.0	58
30	Detection of rain-on-snow (ROS) events and ice layer formation using passive microwave radiometry: A context for Peary caribou habitat in the Canadian Arctic. <i>Remote Sensing of Environment</i> , 2017, 189, 84-95.	11.0	49
31	Retrieving landscape freeze/thaw state from Soil Moisture Active Passive (SMAP) radar and radiometer measurements. <i>Remote Sensing of Environment</i> , 2017, 194, 48-62.	11.0	113
32	Spatial Variability of L-Band Brightness Temperature during Freeze/Thaw Events over a Prairie Environment. <i>Remote Sensing</i> , 2017, 9, 894.	4.0	13
33	Radio-frequency interference mitigating hyperspectral L-band radiometer. <i>Geoscientific Instrumentation, Methods and Data Systems</i> , 2017, 6, 39-51.	1.6	6
34	Microwave snow emission modeling uncertainties in boreal and subarctic environments. <i>Cryosphere</i> , 2016, 10, 623-638.	3.9	18
35	Development of a rain-snow detection algorithm using passive microwave radiometry. <i>Hydrological Processes</i> , 2016, 30, 3184-3196.	2.6	27
36	Evaluation of multi-frequency bare soil microwave reflectivity models. <i>Remote Sensing of Environment</i> , 2015, 162, 186-195.	11.0	41

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37	Evaluation of Spaceborne L-Band Radiometer Measurements for Terrestrial Freeze/Thaw Retrievals in Canada. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2015, 8, 4442-4459.	4.9	67
38	Land surface temperature retrieval over circumpolar Arctic using SSM/Iâ€“SSMIS and MODIS data. Remote Sensing of Environment, 2015, 162, 1-10.	11.0	51
39	Creation of a Lambertian Microwave Surface for Retrieving the Downwelling Contribution in Ground-Based Radiometric Measurements. IEEE Geoscience and Remote Sensing Letters, 2015, 12, 462-466.	3.1	5
40	Influence of meter-scale wind-formed features on the variability of the microwave brightness temperature around Dome C in Antarctica. Cryosphere, 2014, 8, 1105-1119.	3.9	39
41	Modeling the Microwave Emission of Bubbly Ice: Applications to Blue Ice and Superimposed Ice in the Antarctic and Arctic. IEEE Transactions on Geoscience and Remote Sensing, 2014, 52, 6639-6651.	6.3	17
42	Brightness Temperature Simulations of the Canadian Seasonal Snowpack Driven by Measurements of the Snow Specific Surface Area. IEEE Transactions on Geoscience and Remote Sensing, 2013, 51, 4692-4704.	6.3	55
43	Snow Microwave Emission Modeling of Ice Lenses Within a Snowpack Using the Microwave Emission Model for Layered Snowpacks. IEEE Transactions on Geoscience and Remote Sensing, 2013, 51, 4705-4717.	6.3	54
44	Simulation of the microwave emission of multi-layered snowpacks using the Dense Media Radiative transfer theory: the DMRT-ML model. Geoscientific Model Development, 2013, 6, 1061-1078.	3.6	108
45	Snow specific surface area simulation using the one-layer snow model in the Canadian LAnd Surface Scheme (CLASS). Cryosphere, 2013, 7, 961-975.	3.9	17
46	A Merging Algorithm for Regional Snow Mapping over Eastern Canada from AVHRR and SSM/I Data. Remote Sensing, 2013, 5, 5463-5487.	4.0	8
47	New shortwave infrared albedo measurements for snow specific surface area retrieval. Journal of Glaciology, 2012, 58, 941-952.	2.2	47
48	Microwave brightness temperature as an indicator of near-surface air temperature over snow in Canadian northern regions. International Journal of Remote Sensing, 2012, 33, 1126-1138.	2.9	6
49	A simple parameterization for a boreal forest radiative transfer model at microwave frequencies. Remote Sensing of Environment, 2012, 124, 371-383.	11.0	49
50	Improvement of springtime streamflow simulations in a boreal environment by incorporating snow-covered area derived from remote sensing data. Journal of Hydrology, 2010, 390, 35-44.	5.4	60
51	AMSR-E data inversion for soil temperature estimation under snow cover. Remote Sensing of Environment, 2010, 114, 2951-2961.	11.0	17
52	Simulation hydrologique des derniers jours de la crue de printemps: le problÃ“me de la neige manquante. Hydrological Sciences Journal, 2010, 55, 872-882.	2.6	13
53	Surface temperature spatial and temporal variations in North America from homogenized satellite SMMRâ€“SSM/I microwave measurements and reanalysis for 1979â€“2008. Journal of Geophysical Research, 2010, 115, .	3.3	44
54	On the relationship between snow grain morphology and in-situ near infrared calibrated reflectance photographs. Cold Regions Science and Technology, 2010, 61, 34-42.	3.5	33

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55	Analysis of simulated and spaceborne passive microwave brightness temperatures using in situ measurements of snow and vegetation properties. Canadian Journal of Remote Sensing, 2010, 36, S135-S148.	2.4	19
56	Daily Microwave-Derived Surface Temperature over Canada/Alaska. Journal of Applied Meteorology and Climatology, 2007, 46, 591-604.	1.5	15
57	Inversion of a passive microwave snow emission model for water equivalent estimation using airborne and satellite data. Remote Sensing of Environment, 2007, 111, 346-356.	11.0	24
58	Snow Mapping over Eastern Canada for Climate Change Studies Purpose using Historical NOAAVHRR and SSM/I Data. , 2006, , .		3
59	Boreal Forest Transmissivity in the Microwave Domain Using Ground-Based Measurements. IEEE Geoscience and Remote Sensing Letters, 2005, 2, 169-171.	3.1	28
60	Wetland seasonal dynamics and interannual variability over northern high latitudes, derived from microwave satellite data. Journal of Geophysical Research, 2005, 110, .	3.3	28
61	Remote sensing of aerosols over North American land surfaces from POLDER and MODIS measurements. Atmospheric Environment, 2004, 38, 3501-3515.	4.1	33
62	Evaluation of the snow cover variation in the Canadian Regional Climate Model over eastern Canada using passive microwave satellite data. Hydrological Processes, 2004, 18, 1127-1138.	2.6	12
63	Aerosol optical depth spatio-temporal characterization over the Canadian BOREAS domain. International Journal of Remote Sensing, 2004, 25, 2903-2917.	2.9	5
64	Snow water equivalent retrieval in a Canadian boreal environment from microwave measurements using the HUT snow emission model. IEEE Transactions on Geoscience and Remote Sensing, 2004, 42, 1850-1859.	6.3	60