Anna Kontu

List of Publications by Year
in descending order

60 papers	1,549 citations	257101 24 h-index	329751 37 g-index
82 all docs	82 docs citations	82 times ranked	1632 citing authors

#	Article	IF	Citations
1	Evolution of snow and ice temperature, thickness and energy balance in Lake OrajÃrvi, northern Finland. Tellus, Series A: Dynamic Meteorology and Oceanography, 2022, 66, 21564.	0.8	43
2	X-Ray Tomography-Based Microstructure Representation in the Snow Microwave Radiative Transfer Model. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-15.	2.7	6
3	Continuous bidirectional reflectance (BRF) measurement of snow using monochromatic camera. Cold Regions Science and Technology, 2022, 196, 103514.	1.6	0
4	Attenuation of Radar Signal by a Boreal Forest Canopy in Winter. IEEE Geoscience and Remote Sensing Letters, 2022, 19, 1-5.	1.4	3
5	Effect of small-scale snow surface roughness on snow albedo and reflectance. Cryosphere, 2021, 15, 793-820.	1.5	15
6	Inter-annual variation in lake ice composition in the European Arctic: observations based on high-resolution thermistor strings. Earth System Science Data, 2021, 13, 3967-3978.	3.7	6
7	Temperature effects on L-band vegetation optical depth of a boreal forest. Remote Sensing of Environment, 2021, 263, 112542.	4.6	12
8	SodSAR: A Tower-Based 1â€“10 GHz SAR System for Snow, Soil and Vegetation Studies. Sensors, 2020, 20, 6702.	2.1	6
9	Air/snow, snow/ice and ice/water interfaces detection from high-resolution vertical temperature profiles measured by ice mass-balance buoys on an Arctic lake. Annals of Glaciology, 2020, 61, 309-319.	2.8	13
10	Snow Samples Combined With Long-Range Transport Modeling to Reveal the Origin and Temporal Variability of Black Carbon in Seasonal Snow in SodankylÃ (67Â°N). Frontiers in Earth Science, 2020, 8, .	0.8	12
11	Snow cover duration trends observed at sites and predicted by multiple models. Cryosphere, 2020, 14, 4687-4698.	1.5	14
12	Modeling the evolution of the structural anisotropy of snow. Cryosphere, 2020, 14, 51-75.	1.5	15
13	Derivation and Evaluation of a New Extinction Coefficient for Use With the n-HUT Snow Emission Model. IEEE Transactions on Geoscience and Remote Sensing, 2019, 57, 7406-7417.	2.7	3
14	The Influence of Thermal Properties and Canopy- Intercepted Snow on Passive Microwave Transmissivity of a Scots Pine. IEEE Transactions on Geoscience and Remote Sensing, 2019, 57, 5424-5433.	2.7	18
15	On The Estimation of Temporal Changes of Snow Water Equivalent by Spaceborne Sar Interferometry: A New Application for the Sentinel-1 Mission. Journal of Hydrology and Hydromechanics, 2019, 67, 93-100.	0.7	32
16	Meteorological and evaluation datasets for snow modelling at 10 reference sites: description of in situ and bias-corrected reanalysis data. Earth System Science Data, 2019, 11, 865-880.	3.7	36
17	Season -Length Observations of Active and Passive Microwave Signatures of Snow Cover in a Boreal Forest Environment. , 2018, , .		2
18	Analysis of QualitySpec Trek Reflectance from Vertical Profiles of Taiga Snowpack. Geosciences (Switzerland), 2018, 8, 404.	1.0	3

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19	Smos Retrievals of Soil Freezing and Thawing and its Applications. , 2018, , .		2
20	ESM-SnowMIP: assessing snow models and quantifying snow-related climate feedbacks. Geoscientific Model Development, 2018, 11, 5027-5049.	1.3	119
21	Light-absorption of dust and elemental carbon in snow in the Indian Himalayas and the Finnish Arctic. Atmospheric Measurement Techniques, 2018, 11, 1403-1416.	1.2	27
22	Retrieval of Effective Correlation Length and Snow Water Equivalent from Radar and Passive Microwave Measurements. Remote Sensing, 2018, 10, 170.	1.8	42
23	European In-Situ Snow Measurements: Practices and Purposes. Sensors, 2018, 18, 2016.	2.1	50
24	Coupling SNOWPACK-modeled grain size parameters with the HUT snow emission model. Remote Sensing of Environment, 2017, 194, 33-47.	4.6	15
25	An assessment of two automated snow water equivalent instruments during the WMO Solid Precipitation Intercomparison Experiment. Cryosphere, 2017, 11, 101-116.	1.5	44
26	Nordic Snow Radar Experiment. Geoscientific Instrumentation, Methods and Data Systems, 2016, 5, 403-415.	0.6	37
27	SodankylÃ manual snow survey program. Geoscientific Instrumentation, Methods and Data Systems, 2016, 5, 163-179.	0.6	36
28	Spatial and temporal variation of bulk snow properties in northern boreal and tundra environments based on extensive field measurements. Geoscientific Instrumentation, Methods and Data Systems, 2016, 5, 347-363.	0.6	9
29	Arctic Snow Microstructure Experiment for the development of snow emission modelling. Geoscientific Instrumentation, Methods and Data Systems, 2016, 5, 85-94.	0.6	4
30	A 7-year dataset for driving and evaluating snow models at an Arctic site (SodankylÃ, Finland). Geoscientific Instrumentation, Methods and Data Systems, 2016, 5, 219-227.	0.6	32
31	Active Microwave Scattering Signature of Snowpackâ€"Continuous Multiyear SnowScat Observation Experiments. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2016, 9, 3849-3869.	2.3	8
32	Differences Between the HUT Snow Emission Model and MEMLS and Their Effects on Brightness Temperature Simulation. IEEE Transactions on Geoscience and Remote Sensing, 2016, 54, 2001-2019.	2.7	28
33	Snow density and ground permittivity retrieved from L-band radiometry: Application to experimental data. Remote Sensing of Environment, 2016, 180, 377-391.	4.6	60
34	Optical laboratory facilities at the Finnish Meteorological Institute â€" Arctic Research Centre. Geoscientific Instrumentation, Methods and Data Systems, 2016, 5, 315-320.	0.6	3
35	Comparison of traditional and optical grain-size field measurements with SNOWPACK simulations in a taiga snowpack. Journal of Glaciology, 2015, 61, 151-162.	1.1	33
36	Potential of L-band passive microwave radiometry for snow parameter retrieval. , 2015, , .		0

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37	Simulating seasonally and spatially varying snow cover brightness temperature using HUT snow emission model and retrieval of a microwave effective grain size. Remote Sensing of Environment, 2015, 156, 71-95.	4.6	37
38	Brief communication: Light-absorbing impurities can reduce the density of melting snow. Cryosphere, 2014, 8, 991-995.	1.5	35
39	Detection of soil freezing from L-band passive microwave observations. Remote Sensing of Environment, 2014, 147, 206-218.	4.6	120
40	Model for microwave emission of a snow-covered ground with focus on L band. Remote Sensing of Environment, 2014, 154, 180-191.	4.6	62
41	Observation and Modeling of the Microwave Brightness Temperature of Snow-Covered Frozen Lakes and Wetlands. IEEE Transactions on Geoscience and Remote Sensing, 2014, 52, 3275-3288.	2.7	14
42	About UV albedo of seasonal snow at Sodankyla including Arctic - Antarctic comparison aspects. , 2013, , .		0
43	Spectral albedo of seasonal snow during intensive melt period at SodankylÃ, beyond the Arctic Circle. Atmospheric Chemistry and Physics, 2013, 13, 3793-3810.	1.9	54
44	L-Band Radiometer Observations of Soil Processes in Boreal and Subarctic Environments. IEEE Transactions on Geoscience and Remote Sensing, 2012, 50, 1483-1497.	2.7	106
45	Correcting for the influence of frozen lakes in satellite microwave radiometer observations through application of a microwave emission model. Remote Sensing of Environment, 2011, 115, 3695-3706.	4.6	20
46	Analysis of active and passive microwave observations from the NoSREx campaign. , 2011, , .		5
47	Multiple-Layer Adaptation of HUT Snow Emission Model: Comparison With Experimental Data. IEEE Transactions on Geoscience and Remote Sensing, 2010, 48, 2781-2794.	2.7	97
48	Correction to â€œMultiple-Layer Adaptation of HUT Snow Emission Model: Comparison With Experimental Dataâ€•[Jul 10 2781-2794. IEEE Transactions on Geoscience and Remote Sensing, 2010, 48, 3055-3055.	2.7	4
49	Observing seasonal snow changes in the boreal forest area using active and passive microwave measurements. , 2010, , .		3
50	L-band measurements of boreal soil. , 2010, , .		3
51	Simulation of Spaceborne Microwave Radiometer Measurements of Snow Cover Using <i>In Situ</i> Data and Brightness Temperature Modeling. IEEE Transactions on Geoscience and Remote Sensing, 2010, 48, 1031-1044.	2.7	46
52	Experimental validation activities of HUT snow emission model. , 2009, , .		0
53	The atmosphere influence to AMSR-E measurements over snow-covered areas: Simulation and experiments. , 2009, , .		7
54	The behaviour of snow and snow-free surface reflectance in boreal forests: Implications to the performance of snow covered area monitoring. Remote Sensing of Environment, 2009, 113, 907-918.	4.6	42

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55	SNORTEX (Snow Reflectance Transition Experiment): Remote sensing measurement of the dynamic properties of the boreal snow-forest in support to climate and weather forecast: Report of IOP-2008. , 2009, , .		7
56	Diurnal variations in the UV albedo of arctic snow. Atmospheric Chemistry and Physics, 2008, 8, 6551-6563.	1.9	32
57	Ground calibration of SMOS: NIR and CAS. , 2007, , .		4
58	Validation of microwave emission models by simulating AMSR-E brightness temperature data from ground-based observations. , 2007, , .		1
59	SMOS Calibration Subsystem. IEEE Transactions on Geoscience and Remote Sensing, 2007, 45, 3691-3700.	2.7	31
60	SMOS Calibration Subsystem. , 2006, , .		3