Anna Kontu

List of Publications by Year
in descending order

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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	Detection of soil freezing from L-band passive microwave observations. Remote Sensing of Environment, 2014, 147, 206-218.	4.6	120
2	ESM-SnowMIP: assessing snow models and quantifying snow-related climate feedbacks. Geoscientific Model Development, 2018, 11, 5027-5049.	1.3	119
3	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
4	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
5	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
6	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
7	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
8	European In-Situ Snow Measurements: Practices and Purposes. Sensors, 2018, 18, 2016.	2.1	50
9	Simulation of Spaceborne Microwave Radiometer Measurements of Snow Cover Using In Situ Data and Brightness Temperature Modeling. IEEE Transactions on Geoscience and Remote Sensing, 2010, 48, 1031-1044.	2.7	46
10	An assessment of two automated snow water equivalent instruments during the WMO Solid Precipitation Intercomparison Experiment. Cryosphere, 2017, 11, 101-116.	1.5	44
11	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
12	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
13	Retrieval of Effective Correlation Length and Snow Water Equivalent from Radar and Passive Microwave Measurements. Remote Sensing, 2018, 10, 170.	1.8	42
14	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
15	Nordic Snow Radar Experiment. Geoscientific Instrumentation, Methods and Data Systems, 2016, 5, 403-415.	0.6	37
16	SodankylÃ manual snow survey program. Geoscientific Instrumentation, Methods and Data Systems, 2016, 5, 163-179.	0.6	36
17	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
18	Brief communication: Light-absorbing impurities can reduce the density of melting snow. Cryosphere, 2014, 8, 991-995.	1.5	35

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19	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
20	Diurnal variations in the UV albedo of arctic snow. Atmospheric Chemistry and Physics, 2008, 8, 6551-6563.	1.9	32
21	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
22	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
23	SMOS Calibration Subsystem. IEEE Transactions on Geoscience and Remote Sensing, 2007, 45, 3691-3700.	2.7	31
24	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
25	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
26	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
27	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
28	Coupling SNOWPACK-modeled grain size parameters with the HUT snow emission model. Remote Sensing of Environment, 2017, 194, 33-47.	4.6	15
29	Effect of small-scale snow surface roughness on snow albedo and reflectance. Cryosphere, 2021, 15, 793-820.	1.5	15
30	Modeling the evolution of the structural anisotropy of snow. Cryosphere, 2020, 14, 51-75.	1.5	15
31	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
32	Snow cover duration trends observed at sites and predicted by multiple models. Cryosphere, 2020, 14, 4687-4698.	1.5	14
33	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
34	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
35	Temperature effects on L-band vegetation optical depth of a boreal forest. Remote Sensing of Environment, 2021, 263, 112542.	4.6	12
36	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

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37	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
38	The atmosphere influence to AMSR-E measurements over snow-covered areas: Simulation and experiments. , 2009, , .		7
39	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
40	SodSAR: A Tower-Based 1â€"10 GHz SAR System for Snow, Soil and Vegetation Studies. Sensors, 2020, 20, 6702.	2.1	6
41	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
42	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
43	Analysis of active and passive microwave observations from the NoSREx campaign. , 2011, , .		5
44	Ground calibration of SMOS: NIR and CAS. , 2007, , .		4
45	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
46	Arctic Snow Microstructure Experiment for the development of snow emission modelling. Geoscientific Instrumentation, Methods and Data Systems, 2016, 5, 85-94.	0.6	4
47	SMOS Calibration Subsystem. , 2006, , .		3
48	Observing seasonal snow changes in the boreal forest area using active and passive microwave measurements. , 2010, , .		3
49	L-band measurements of boreal soil. , 2010, , .		3
50	Analysis of QualitySpec Trek Reflectance from Vertical Profiles of Taiga Snowpack. Geosciences (Switzerland), 2018, 8, 404.	1.0	3
51	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
52	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
53	Attenuation of Radar Signal by a Boreal Forest Canopy in Winter. IEEE Geoscience and Remote Sensing Letters, 2022, 19, 1-5.	1.4	3
54	Season -Length Observations of Active and Passive Microwave Signatures of Snow Cover in a Boreal Forest Environment. , 2018, , .		2

#	Article	IF	Citations
55	Smos Retrievals of Soil Freezing and Thawing and its Applications. , 2018, , .		2
56	Validation of microwave emission models by simulating AMSR-E brightness temperature data from ground-based observations. , 2007, , .		1
57	Experimental validation activities of HUT snow emission model. , 2009, , .		0
58	About UV albedo of seasonal snow at Sodankyla including Arctic - Antarctic comparison aspects. , 2013, , .		0
59	Potential of L-band passive microwave radiometry for snow parameter retrieval. , 2015, , .		0
60	Continuous bidirectional reflectance (BRF) measurement of snow using monochromatic camera. Cold Regions Science and Technology, 2022, 196, 103514.	1.6	0