Xiaolan Xu

List of Publications by Year
in descending order

53 papers	989 citations	430874 18 h-index	552781 26 g-index
53 all docs	53 docs citations	53 times ranked	824 citing authors

#	Article	IF	Citations
1	Retrieving landscape freeze/thaw state from Soil Moisture Active Passive (SMAP) radar and radiometer measurements. Remote Sensing of Environment, 2017, 194, 48-62.	11.0	113
2	Models of L-Band Radar Backscattering Coefficients Over Global Terrain for Soil Moisture Retrieval. IEEE Transactions on Geoscience and Remote Sensing, 2014, 52, 1381-1396.	6.3	110
3	The Effects of Layers in Dry Snow on Its Passive Microwave Emissions Using Dense Media Radiative Transfer Theory Based on the Quasicrystalline Approximation (QCA/DMRT). IEEE Transactions on Geoscience and Remote Sensing, 2008, 46, 3663-3671.	6.3	84
4	Electromagnetic Scattering by Bicontinuous Random Microstructures With Discrete Permittivities. IEEE Transactions on Geoscience and Remote Sensing, 2010, 48, 3139-3151.	6.3	81
5	Electromagnetic Computation in Scattering of Electromagnetic Waves by Random Rough Surface and Dense Media in Microwave Remote Sensing of Land Surfaces. Proceedings of the IEEE, 2013, 101, 255-279.	21.3	62
6	Dense Media Radiative Transfer Applied to SnowScat and SnowSAR. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2014, 7, 3811-3825.	4.9	44
7	A Semiempirical Modeling of Soil Moisture, Vegetation, and Surface Roughness Impact on CYGNSS Reflectometry Data. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-17.	6.3	41
8	Remote Sensing of Snow Water Equivalent Using P-Band Coherent Reflection. IEEE Geoscience and Remote Sensing Letters, 2017, 14, 309-313.	3.1	40
9	Electromagnetic Models of Co/Cross Polarization of Bicontinuous/DMRT in Radar Remote Sensing of Terrestrial Snow at X- and Ku-band for CoReH2O and SCLP Applications. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2012, 5, 1024-1032.	4.9	39
10	Capturing agricultural soil freeze/thaw state through remote sensing and ground observations: A soil freeze/thaw validation campaign. Remote Sensing of Environment, 2018, 211, 59-70.	11.0	36
11	Coherent Model of L-Band Radar Scattering by Soybean Plants: Model Development, Evaluation, and Retrieval. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2016, 9, 272-284.	4.9	26
12	Global Assessment of the SMAP Freeze/Thaw Data Record and Regional Applications for Detecting Spring Onset and Frost Events. Remote Sensing, 2019, 11, 1317.	4.0	26
13	Remote Sensing of Snow Water Equivalent Using Coherent Reflection From Satellite Signals of Opportunity: Theoretical Modeling. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2017, 10, 5529-5540.	4.9	25
14	Experimental Demonstration of Soil Moisture Remote Sensing Using P-Band Satellite Signals of Opportunity. IEEE Geoscience and Remote Sensing Letters, 2020, 17, 207-211.	3.1	25
15	Microwave Scattering and Medium Characterization for Terrestrial Snow With QCA–Mie and Bicontinuous Models: Comparison Studies. IEEE Transactions on Geoscience and Remote Sensing, 2016, 54, 3637-3648.	6.3	24
16	Active and Passive Vegetated Surface Models With Rough Surface Boundary Conditions From NMM3D. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2013, 6, 1698-1709.	4.9	23
17	Active Remote Sensing of Snow Using NMM3D/DMRT and Comparison With CLPX II Airborne Data. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2010, 3, 689-697.	4.9	20
18	Freeze/Thaw Detection and Validation Using Aquarius™ L-Band Backscattering Data. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2016, 9, 1370-1381.	4.9	20

#	Article	IF	Citations
19	A Satellite Synthetic Aperture Radar Concept Using *P*-Band Signals of Opportunity. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2021, 14, 2796-2816.	4.9	18
20	Dry Snow Parameter Retrieval With Ground-Based Single-Pass Synthetic Aperture Radar Interferometry. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-14.	6.3	17
21	Uniaxial Effective Permittivity of Anisotropic Bicontinuous Random Media Using NMM3D. IEEE Geoscience and Remote Sensing Letters, 2016, 13, 1168-1172.	3.1	13
22	Regularized Dual-Channel Algorithm for the Retrieval of Soil Moisture and Vegetation Optical Depth From SMAP Measurements. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2022, 15, 102-114.	4.9	13
23	P-Band Signals of Opportunity for Remote Sensing of Root Zone Soil Moisture. , 2018, , .		12
24	Microwave emission from snowpacks: modeling the effects of volume scattering, surface scattering and layering. , 2008, , .		8
25	HydroCube Mission concept: P-Band signals of opportunity for remote sensing of snow and root zone soil moisture. , 2017, , .		8
26	Modeling multi-layer effects in passive microwave remote sensing of dry snow using Dense Media Radiative Transfer Theory (DMRT) based on quasicrystalline approximation. , 2007, , .		6
27	Normalized Residual Scattering Index Applied to Aquarius L-Band Measurements. IEEE Geoscience and Remote Sensing Letters, 2013, 10, 890-894.	3.1	6
28	Potential Satellite Monitoring of Surface Organic Soil Properties in Arctic Tundra From SMAP. Water Resources Research, 2022, 58, .	4.2	6
29	MULTIPLE SCATTERING OF WAVES BY COMPLEX OBJECTS USING HYBRID METHOD OF T-MATRIX AND FOLDY-LAX EQUATIONS USING VECTOR SPHERICAL WAVES AND VECTOR SPHEROIDAL WAVES. Progress in Electromagnetics Research, 2020, 168, 87-111.	4.4	5
30	UAS-based P-band signals of opportunity for remote sensing of snow and root zone soil moisture. , 2018, , .		5
31	Feasibility of Inter-Comparing Airborne and Spaceborne Observations of Radar Backscattering Coefficients. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2015, 8, 3507-3519.	4.9	4
32	Multi-Frequency Tomography Radar Observations of Snow Stratigraphy at Fraser During SnowEx. , 2018, , .		4
33	Review Article: Global Monitoring of Snow Water Equivalent using High Frequency Radar Remote Sensing. , 0, , .		4
34	Scattering and emission models for microwave remote sensing of snow using numerical solutions of maxwell equations. , 2016, , .		3
35	Landscape freeze/thaw standerd and enhanced products from soil moisture active/passive (SMAP) radiometer data. , 2017, , .		3
36	Reflectivity modeling of signals of opportunity for remote sensing of snow and soil moisture. , 2017, , .		3

#	Article	IF	Citations
37	Experimental Results of Snow Measurement Using P-Band Signals of Opportunity. , 2018, , .		3
38	Bicontinuous/DMRT model applied to active and passive microwave remote sensing of terrestrial snow. , 2014, , .		2
39	Snow Water Equivalent retrieval using P-band signals of Opportunity. , 2016, , .		2
40	Remote sensing of terrestrial snow using signals of opportunity. , 2017, , .		2
41	Bicontinuous DMRT model extracted from multi-size QCA with application to terrestrial snowpack. , 2014, , .		1
42	Experimental Results of Snow and Soil Moisture Measurement from Non-Vegetated and Vegetated Sites Using P-Band Signals of Opportunity. , 2019, , .		1
43	Vegetation Optical Depth Retrieval from CYGNSS Data. , 2021, , .		1
44	Comparison with CLPX II airborne data using DMRT model. , 2009, , .		0
45	Denense media radiative transfer theory for passive remote sensing and application to SWE Retrieval. , 2010, , .		0
46	Coherent model of L band radar scattering by soya bean fields using analytic methods and Monte Carlo simulations. , 2014, , .		0
47	Uniaxial effective permittivity extracted from anisotropic bicontinuous media using numerical solution of Maxwell equation in 3D and strong permittivity fluctuations. , 2016, , .		0
48	Landscape freeze/thaw products from Soil Moisture Active/Passive (SMAP) radar and radiometer data. , 2016, , .		0
49	Global Freeze/Thaw Product from L-Band Radiometer Data. , 2018, , .		0
50	Retrieving Snow Water Equivalence using Signals of Opportunity Bistatic Radar. , 2018, , .		0
51	Monitoring ECO-Hydrological Spring Onset Over Alaska and Northern Canada with Complementary Satellite Remote Sensing Data. , 2021, , .		0
52	Snow Size Distribution and Aggregation Modeling Based on the Bicontinuous Model. , 2020, , .		0
53	Observing System Simulation Experiment for Remote Sensing of Snow at P-Band. , 2020, , .		0