

Peggy O'Neill

List of Publications by Year in descending order

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81900

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116
docs citations

116
times ranked

4547
citing authors

#	ARTICLE	IF	CITATIONS
1	Thermal Hydraulic Disaggregation of SMAP Soil Moisture Over the Continental United States. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2022, 15, 4072-4092.	4.9	6
2	Assessing Disaggregated SMAP Soil Moisture Products in the United States. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2021, 14, 2577-2592.	4.9	12
3	Microwave Radiometry at Frequencies From 500 to 1400 MHz: An Emerging Technology for Earth Observations. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2021, 14, 4894-4914.	4.9	16
4	Simultaneous Retrieval of Surface Roughness Parameters for Bare Soils From Combined Active/Passive Microwave SMAP Observations. IEEE Transactions on Geoscience and Remote Sensing, 2021, 59, 8182-8194.	6.3	2
5	Comparison of soil dielectric mixing models for soil moisture retrieval using SMAP brightness temperature over croplands in India. Journal of Hydrology, 2021, 602, 126673.	5.4	4
6	SMAP Validation Experiment 2019-2022 (SMAPVEX19-22): Detection of Soil Moisture Under Temperate Forest Canopy. , 2021, , .		3
7	Active/Passive Remote Sensing of a Mature Soybean Canopy at L-band. , 2021, , .		2
8	The backscattering contribution of soybean pods at L-band. Remote Sensing of Environment, 2020, 248, 111977.	11.0	10
9	SMAP Detects Soil Moisture Under Temperate Forest Canopies. Geophysical Research Letters, 2020, 47, e2020GL089697.	4.0	34
10	Appraisal of SMAP Operational Soil Moisture Product from a Global Perspective. Remote Sensing, 2020, 12, 1977.	4.0	14
11	L-Band Radar Experiment and Modeling of a Corn Canopy Over a Full Growing Season. IEEE Transactions on Geoscience and Remote Sensing, 2020, 58, 5821-5835.	6.3	16
12	Improved SMAP Dual-Channel Algorithm for the Retrieval of Soil Moisture. IEEE Transactions on Geoscience and Remote Sensing, 2020, 58, 3894-3905.	6.3	62
13	How Satellite Soil Moisture Data Can Help to Monitor the Impacts of Climate Change: SMAP Case Studies. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2020, 13, 1590-1596.	4.9	12
14	SMAP Mission Status and Plan. , 2020, , .		0
15	SMAP Validation Experiment 2019-2021 (SMAPVEX19-21): Detection of Soil Moisture under Forest Canopy. , 2020, , .		1
16	The Next Generation of L Band Radiometry: User'S Requirements and Technical Solutions. , 2020, , .		3
17	The SMAP and Copernicus Sentinel 1A/B microwave active-passive high resolution surface soil moisture product. Remote Sensing of Environment, 2019, 233, 111380.	11.0	175
18	Comparison of high-resolution airborne soil moisture retrievals to SMAP soil moisture during the SMAP validation experiment 2016 (SMAPVEX16). Remote Sensing of Environment, 2019, 227, 137-150.	11.0	45

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19	Improving Brightness Temperature Measurements Near Coastal Areas for SMAP. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2019, 12, 4578-4588.	4.9	9
20	SCoBi-Veg: A Generalized Bistatic Scattering Model of Reflectometry From Vegetation for Signals of Opportunity Applications. IEEE Transactions on Geoscience and Remote Sensing, 2019, 57, 1049-1068.	6.3	48
21	An assessment of the differences between spatial resolution and grid size for the SMAP enhanced soil moisture product over homogeneous sites. Remote Sensing of Environment, 2018, 207, 65-70.	11.0	46
22	The SMAP mission combined active-passive soil moisture product at 9°km and 3°km spatial resolutions. Remote Sensing of Environment, 2018, 211, 204-217.	11.0	59
23	Development and assessment of the SMAP enhanced passive soil moisture product. Remote Sensing of Environment, 2018, 204, 931-941.	11.0	297
24	Smop Mission Status, New Products and Extended-Phase Goals. , 2018, , .		0
25	Polarization Decomposition and Temperature Bias Resolution for Smop Passive Soil Moisture Retrieval Using Time Series Brightness Temperature Observations. , 2018, , .		0
26	Physics-Based Retrieval of Surface Roughness Parameters for Bare Soils from Combined Active-Passive Microwave Signatures. , 2018, , .		2
27	SMAP L-Band Microwave Radiometer: Instrument Design and First Year on Orbit. IEEE Transactions on Geoscience and Remote Sensing, 2017, 55, 1954-1966.	6.3	141
28	Validation of SMAP surface soil moisture products with core validation sites. Remote Sensing of Environment, 2017, 191, 215-231.	11.0	503
29	Surface Soil Moisture Retrieval Using the L-Band Synthetic Aperture Radar Onboard the Soil Moisture Activeâ€“Passive Satellite and Evaluation at Core Validation Sites. IEEE Transactions on Geoscience and Remote Sensing, 2017, 55, 1897-1914.	6.3	64
30	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. Remote Sensing of Environment, 2017, 192, 238-262.	11.0	323
31	Combined Radarâ€“Radiometer Surface Soil Moisture and Roughness Estimation. IEEE Transactions on Geoscience and Remote Sensing, 2017, 55, 4098-4110.	6.3	8
32	Evaluating soil moisture retrievals from ESA's SMOS and NASA's SMAP brightness temperature datasets. Remote Sensing of Environment, 2017, 193, 257-273.	11.0	90
33	Considering combined or separated roughness and vegetation effects in soil moisture retrievals. International Journal of Applied Earth Observation and Geoinformation, 2017, 55, 73-86.	2.8	19
34	Nasa soil moisture active passive mission status and science highlights. , 2017, , .		0
35	Soil moisture retrieval with airborne PALS instrument over agricultural areas in SMAPVEX16. , 2017, , .		1
36	Development of a coherent bistatic vegetation model for signal of opportunity applications at VHF/UHF-bands. , 2017, , .		7

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37	Assessment of the SMAP Passive Soil Moisture Product. IEEE Transactions on Geoscience and Remote Sensing, 2016, 54, 4994-5007.	6.3	460
38	Combining SMAP and Sentinel data for high-resolution Soil Moisture product. , 2016, , .		14
39	NASA Soil Moisture Active Passive mission status and science performance. , 2016, , .		3
40	Evaluation of the validated Soil Moisture product from the SMAP radiometer. , 2016, , .		9
41	First application of regression analysis to retrieve Soil Moisture from SMAP brightness temperature observations consistent with SMOS. , 2016, , .		0
42	Multi-frequency investigation into scattering from vegetation over the growth cycle. , 2016, , .		0
43	Evaluation of radar vegetation indices for vegetation water content estimation using data from a ground-based SMAP simulator. , 2015, , .		7
44	Evaluation of Dielectric Mixing Models for Passive Microwave Soil Moisture Retrieval Using Data From ComRAD Ground-Based SMAP Simulator. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2015, 8, 4345-4354.	4.9	44
45	Global Soil Moisture From the Aquarius/SAC-D Satellite: Description and Initial Assessment. IEEE Geoscience and Remote Sensing Letters, 2015, 12, 923-927.	3.1	96
46	Performance evaluation of WRF-Noah Land surface model estimated soil moisture for hydrological application: Synergistic evaluation using SMOS retrieved soil moisture. Journal of Hydrology, 2015, 529, 200-212.	5.4	50
47	Seasonal parameterizations of the tau-omega model using the ComRAD ground-based SMAP simulator. , 2014, , .		4
48	Assessment of SMOS soil moisture retrieval parameters using tau-omega algorithms for soil moisture deficit estimation. Journal of Hydrology, 2014, 519, 574-587.	5.4	49
49	Comparison of SMOS and SMAP soil moisture retrieval approaches using tower-based radiometer data over a vineyard field. Remote Sensing of Environment, 2014, 154, 89-101.	11.0	27
50	Canadian Experiment for Soil Moisture in 2010 (CanEx-SM10): Overview and Preliminary Results. IEEE Transactions on Geoscience and Remote Sensing, 2013, 51, 347-363.	6.3	71
51	L-band active / passive time series measurements over a growing season using the ComRAD ground-based SMAP simulator. , 2013, , .		6
52	NASA's Soil Moisture Active Passive (SMAP) Mission and Opportunities for Applications Users. Bulletin of the American Meteorological Society, 2013, 94, 1125-1128.	3.3	59
53	Effective albedo of vegetated terrain at L-band. , 2012, , .		1
54	Effective tree scattering and opacity at L-band. Remote Sensing of Environment, 2012, 118, 1-9.	11.0	96

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55	Technical Note: Calibration and validation of geophysical observation models. Biogeosciences, 2012, 9, 2195-2201.	3.3	12
56	Impact of Conifer Forest Litter on Microwave Emission at L-Band. IEEE Transactions on Geoscience and Remote Sensing, 2012, 50, 1071-1084.	6.3	22
57	Evaluation of SMAP level 2 soil moisture algorithms using SMOS data. , 2011, , .		2
58	Effective tree scattering at L-band. , 2011, , .		0
59	L-band H polarized microwave emission during the corn growth cycle. , 2011, , .		0
60	A First-Order Radiative Transfer Model for Microwave Radiometry of Forest Canopies at L-Band. IEEE Transactions on Geoscience and Remote Sensing, 2011, 49, 3167-3179.	6.3	77
61	Passive L-band H polarized microwave emission during the corn growth cycle. , 2011, , .		0
62	Utilization of ancillary data sets for SMAP algorithm development and product generation. , 2011, , .		3
63	The NASA Soil Moisture Active Passive (SMAP) mission formulation. , 2011, , .		11
64	The Soil Moisture Active Passive (SMAP) applications activity. , 2011, , .		2
65	Backscatter measurements over vegetation by ground-based microwave radars. , 2011, , .		0
66	The Soil Moisture Active Passive (SMAP) Mission. Proceedings of the IEEE, 2010, 98, 704-716.	21.3	2,546
67	Effects of corn on C- and L-band radar backscatter: A correction method for soil moisture retrieval. Remote Sensing of Environment, 2010, 114, 2417-2430.	11.0	149
68	Vegetation water content mapping in a diverse agricultural landscape: National Airborne Field Experiment 2006. Journal of Applied Remote Sensing, 2010, 4, 043532.	1.3	8
69	Characterization of forest opacity using multi-angular emission and backscatter data. , 2010, , .		3
70	Fostering applications opportunities for the NASA Soil Moisture Active Passive (SMAP) Mission. , 2010, , .		1
71	Deriving soil moisture with the combined L-band radar and radiometer measurements. , 2010, , .		0
72	The NASA Soil Moisture Active Passive (SMAP) mission: Overview. , 2010, , .		33

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73	L Band Brightness Temperature Observations over a Corn Canopy during the Entire Growth Cycle. Sensors, 2010, 10, 6980-7001.	3.8	7
74	Microwave soil moisture retrieval under trees using a modified tau-omega model. , 2009, , .		3
75	L-Band Radar Estimation of Forest Attenuation for Active/Passive Soil Moisture Inversion. IEEE Transactions on Geoscience and Remote Sensing, 2009, 47, 3026-3040.	6.3	25
76	Partitioning evapotranspiration in semiarid grassland and shrubland ecosystems using time series of soil surface temperature. Agricultural and Forest Meteorology, 2009, 149, 59-72.	4.8	107
77	A physical model for microwave radiometry of forest canopies. , 2009, , .		4
78	Soil Moisture Retrieval During a Corn Growth Cycle Using L-Band (1.6 GHz) Radar Observations. IEEE Transactions on Geoscience and Remote Sensing, 2008, 46, 2365-2374.	6.3	62
79	Soil Moisture Active/Passive (SMAP) Mission concept. Proceedings of SPIE, 2008, , .	0.8	21
80	Microwave Soil Moisture Retrieval Under Trees. , 2008, , .		2
81	The Soil Moisture Active/Passive Mission (SMAP).. , 2008, , .		48
82	Improving Spaceborne Radiometer Soil Moisture Retrievals With Alternative Aggregation Rules for Ancillary Parameters in Highly Heterogeneous Vegetated Areas. IEEE Geoscience and Remote Sensing Letters, 2008, 5, 261-265.	3.1	20
83	ComRAD active / passive microwave measurement of tree canopies. , 2007, , .		8
84	Hydros Soil Moisture Retrieval Algorithms: Status and Relevance to Future Missions. , 2006, , .		5
85	Evaluation of Potential Error Sources for Soil Moisture Retrieval from Satellite Microwave Radiometer. , 2006, , .		2
86	An observing system simulation experiment for hydros radiometer-only soil moisture products. IEEE Transactions on Geoscience and Remote Sensing, 2005, 43, 1289-1303.	6.3	85
87	The hydrosphere State (hydros) Satellite mission: an Earth system pathfinder for global mapping of soil moisture and land freeze/thaw. IEEE Transactions on Geoscience and Remote Sensing, 2004, 42, 2184-2195.	6.3	217
88	Surface Soil Moisture Retrieval and Mapping Using High-Frequency Microwave Satellite Observations in the Southern Great Plains. Journal of Hydrometeorology, 2002, 3, 688-699.	1.9	54
89	A parameterized surface reflectivity model and estimation of bare-surface soil moisture with L-band radiometer. IEEE Transactions on Geoscience and Remote Sensing, 2002, 40, 2674-2686.	6.3	113
90	Evaporation from Nonvegetated Surfaces: Surface Aridity Methods and Passive Microwave Remote Sensing. Journal of Applied Meteorology and Climatology, 1999, 38, 1346-1351.	1.7	20

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91	Huntsville '96: An experiment in ground-based microwave remote sensing of soil moisture. <i>International Journal of Remote Sensing</i> , 1999, 20, 823-828.	2.9	9
92	Correction of Surface Roughness and Topographic Effects on Airborne SAR in Mountainous Rangeland Areas. <i>Remote Sensing of Environment</i> , 1999, 67, 124-136.	11.0	21
93	Using a modeling approach to predict soil hydraulic properties from passive microwave measurements. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 1998, 36, 454-462.	6.3	48
94	Soil water infiltration observation with microwave radiometers. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 1998, 36, 1376-1383.	6.3	12
95	Observations of coherent emissions from soils. <i>Radio Science</i> , 1998, 33, 267-272.	1.6	8
96	Effect of Digital Elevation Model resolution on topographic correction of airborne SAR. <i>International Journal of Remote Sensing</i> , 1998, 19, 3075-3096.	2.9	29
97	Passive microwave observation of diurnal surface soil moisture. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 1997, 35, 1210-1222.	6.3	84
98	A comparison of soil moisture retrieval models using SIR-C measurements over the little Washita River watershed. <i>Remote Sensing of Environment</i> , 1997, 59, 308-320.	11.0	71
99	Microwave soil moisture estimation in humid and semiarid watersheds. <i>Advances in Space Research</i> , 1993, 13, 115-118.	2.6	6
100	Soil moisture and rainfall estimation over a semiarid environment with the ESTAR microwave radiometer. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 1993, 31, 836-841.	6.3	75
101	Microwave emission and crop residues. <i>Remote Sensing of Environment</i> , 1991, 36, 129-136.	11.0	8
102	Observed effects of soil organic matter content on the microwave emissivity of soils. <i>Remote Sensing of Environment</i> , 1990, 31, 175-182.	11.0	18
103	Attenuation of soil microwave emission by corn and soybeans at 1.4 and 5 GHz. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 1990, 28, 978-980.	6.3	118
104	Significance of agricultural row structure on the microwave emissivity of soils. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 1988, 26, 580-589.	6.3	11
105	Salinity Effects on the Microwave Emission of Soils. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 1987, GE-25, 214-220.	6.3	44
106	Temporal observations of surface soil moisture using a passive microwave sensor. <i>Remote Sensing of Environment</i> , 1987, 21, 281-296.	11.0	28
107	Passive Microwave Soil Moisture Research. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 1986, GE-24, 12-22.	6.3	199
108	Microwave Dielectric Model for Aggregated Soils. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 1986, GE-24, 920-929.	6.3	21

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109	Estimating Soil Hydraulic Parameters Using Passive Microwave Data. IEEE Transactions on Geoscience and Remote Sensing, 1986, GE-24, 930-936.	6.3	46
110	Microwave remote sensing of soil moisture: a comparison of results from different truck and aircraft platforms. International Journal of Remote Sensing, 1985, 6, 1125-1134.	2.9	9
111	Passive microwave remote sensing of soil moisture from an aircraft platform. Remote Sensing of Environment, 1984, 14, 135-151.	11.0	55
112	Effects of corn stalk orientation and water content on passive microwave sensing of soil moisture. Remote Sensing of Environment, 1984, 16, 55-67.	11.0	19
113	Multifrequency Measurements of the Effects of Soil Moisture, Soil Texture, And Surface Roughness. IEEE Transactions on Geoscience and Remote Sensing, 1983, GE-21, 44-51.	6.3	192
114	Multifrequency Microwave Radiometer Measurements of Soil Moisture. IEEE Transactions on Geoscience and Remote Sensing, 1982, GE-20, 468-475.	6.3	51
115	NASA's Soil Moisture Active Passive (SMAP) Mission and Opportunities For Applications Users. Bulletin of the American Meteorological Society, 0, , 130121120822004.	3.3	2