Thomas J Jackson

List of Publications by Year
in descending order

87	9,476	57758 44	62596 80
papers	citations	h-index	g-index

88	88	88	5045
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	The Soil Moisture Active Passive (SMAP) Mission. Proceedings of the IEEE, 2010, 98, 704-716.	21.3	2,546
2	III. Measuring surface soil moisture using passive microwave remote sensing. Hydrological Processes, 1993, 7, 139-152.	2.6	603
3	Validation of Advanced Microwave Scanning Radiometer Soil Moisture Products. IEEE Transactions on Geoscience and Remote Sensing, 2010, 48, 4256-4272.	6.3	489
4	The USDA Natural Resources Conservation Service Soil Climate Analysis Network (SCAN). Journal of Atmospheric and Oceanic Technology, 2007, 24, 2073-2077.	1.3	364
5	Field observations of soil moisture variability across scales. Water Resources Research, 2008, 44, .	4.2	316
6	Validation of Soil Moisture and Ocean Salinity (SMOS) Soil Moisture Over Watershed Networks in the U.S.. IEEE Transactions on Geoscience and Remote Sensing, 2012, 50, 1530-1543.	6.3	313
7	Evaluating the Utility of Remotely Sensed Soil Moisture Retrievals for Operational Agricultural Drought Monitoring. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2010, 3, 57-66.	4.9	299
8	Development and assessment of the SMAP enhanced passive soil moisture product. Remote Sensing of Environment, 2018, 204, 931-941.	11.0	297
9	Watershed scale temporal and spatial stability of soil moisture and its role in validating satellite estimates. Remote Sensing of Environment, 2004, 92, 427-435.	11.0	239
10	The Soil Moisture Active Passive Validation Experiment 2012 (SMAPVEX12): Prelaunch Calibration and Validation of the SMAP Soil Moisture Algorithms. IEEE Transactions on Geoscience and Remote Sensing, 2015, 53, 2784-2801.	6.3	206
11	Temporal persistence and stability of surface soil moisture in a semi-arid watershed. Remote Sensing of Environment, 2008, 112, 304-313.	11.0	200
12	Assessment of the SMAP Level-4 Surface and Root-Zone Soil Moisture Product Using In Situ Measurements. Journal of Hydrometeorology, 2017, 18, 2621-2645.	1.9	196
13	Temporal stability of surface soil moisture in the Little Washita River watershed and its applications in satellite soil moisture product validation. Journal of Hydrology, 2006, 323, 168-177.	5.4	186
14	The Soil Moisture Active Passive Experiments (SMAPEx): Toward Soil Moisture Retrieval From the SMAP Mission. IEEE Transactions on Geoscience and Remote Sensing, 2014, 52, 490-507.	6.3	154
15	Soil moisture mapping and AMSR-E validation using the PSR in SMEX02. Remote Sensing of Environment, 2006, 103, 127-139.	11.0	151
16	Radar Vegetation Index for Estimating the Vegetation Water Content of Rice and Soybean. IEEE Geoscience and Remote Sensing Letters, 2012, 9, 564-568.	3.1	144
17	The Contributions of Precipitation and Soil Moisture Observations to the Skill of Soil Moisture Estimates in a Land Data Assimilation System. Journal of Hydrometeorology, 2011, 12, 750-765.	1.9	135
18	WindSat Global Soil Moisture Retrieval and Validation. IEEE Transactions on Geoscience and Remote Sensing, 2010, 48, 2224-2241.	6.3	120

#	Article	IF	Citations
19	Soil moisture experiment in the Luan River supporting new satellite mission opportunities. Remote Sensing of Environment, 2020, 240, 111680.	11.0	120
20	Application of Triple Collocation in Ground-Based Validation of Soil Moisture Active/Passive (SMAP) Level 2 Data Products. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2017, 10, 489-502.	4.9	115
21	A Comparative Study of the SMAP Passive Soil Moisture Product With Existing Satellite-Based Soil Moisture Products. IEEE Transactions on Geoscience and Remote Sensing, 2017, 55, 2959-2971.	6.3	108
22	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
23	Comparison Between SMOS, VUA, ASCAT, and ECMWF Soil Moisture Products Over Four Watersheds in U.S.. IEEE Transactions on Geoscience and Remote Sensing, 2014, 52, 1562-1571.	6.3	88
24	Passive Microwave Soil Moisture Downscaling Using Vegetation Index and Skin Surface Temperature. Vadose Zone Journal, 2013, 12, 1-19.	2.2	79
25	The NAFEâ€™06 data set: Towards soil moisture retrieval at intermediate resolution. Advances in Water Resources, 2008, 31, 1444-1455.	3.8	74
26	Spatial Downscaling of SMAP Soil Moisture Using MODIS Land Surface Temperature and NDVI During SMAPVEX15. IEEE Geoscience and Remote Sensing Letters, 2017, 14, 2107-2111.	3.1	73
27	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
28	Validation and scaling of soil moisture in a semi-arid environment: SMAP validation experiment 2015 (SMAPVEX15). Remote Sensing of Environment, 2017, 196, 101-112.	11.0	65
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	Validation of Soil Moisture Data Products From the NASA SMAP Mission. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2022, 15, 364-392.	4.9	62
31	The SMAP mission combined active-passive soil moisture product at 9â€¯km and 3â€¯km spatial resolutions. Remote Sensing of Environment, 2018, 211, 204-217.	11.0	59
32	Assessing SMAP Soil Moisture Scaling and Retrieval in the Carman (Canada) Study Site. Vadose Zone Journal, 2018, 17, 1-14.	2.2	59
33	Combined Passive and Active Microwave Observations of Soil Moisture During CLASIC. IEEE Geoscience and Remote Sensing Letters, 2009, 6, 644-648.	3.1	57
34	Downscaling of SMAP Soil Moisture Using Land Surface Temperature and Vegetation Data. Vadose Zone Journal, 2018, 17, 1-15.	2.2	57
35	Reply to comment by H. Vereecken et al. on â€œField observations of soil moisture variability across scalesâ€• Water Resources Research, 2008, 44, .	4.2	56
36	Comparison of vegetation water contents derived from shortwave-infrared and passive-microwave sensors over central Iowa. Remote Sensing of Environment, 2011, 115, 2376-2383.	11.0	56

#	Article	IF	Citations
37	A New International Network for in Situ Soil Moisture Data. Eos, 2011, 92, 141-142.	0.1	54
38	On the identification of representative in situ soil moisture monitoring stations for the validation of SMAP soil moisture products in Australia. Journal of Hydrology, 2016, 537, 367-381.	5.4	52
39	Comprehensive analysis of alternative downscaled soil moisture products. Remote Sensing of Environment, 2020, 239, 111586.	11.0	52
40	Role of Passive Microwave Remote Sensing in Improving Flood Forecasts. IEEE Geoscience and Remote Sensing Letters, 2009, 6, 112-116.	3.1	47
41	Validation of SMAP soil moisture for the SMAPVEX15 field campaign using a hyperâ€resolution model. Water Resources Research, 2017, 53, 3013-3028.	4.2	47
42	Optical Sensing of Vegetation Water Content: A Synthesis Study. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2015, 8, 1456-1464.	4.9	46
43	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
44	GCOM-W AMSR2 Soil Moisture Product Validation Using Core Validation Sites. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2018, 11, 209-219.	4.9	44
45	Validation of AMSR-E soil moisture using L-band airborne radiometer data from National Airborne Field Experiment 2006. Remote Sensing of Environment, 2011, 115, 2096-2103.	11.0	43
46	Long term analysis of PALS soil moisture campaign measurements for global soil moisture algorithm development. Remote Sensing of Environment, 2012, 121, 309-322.	11.0	41
47	AMSR2 Soil Moisture Downscaling Using Temperature and Vegetation Data. Remote Sensing, 2018, 10, 1575.	4.0	38
48	Clarifications on the â€œComparison Between SMOS, VUA, ASCAT, and ECMWF Soil Moisture Products Over Four Watersheds in U.S.â€• IEEE Transactions on Geoscience and Remote Sensing, 2014, 52, 1901-1906.	6.3	35
49	Evaluation and validation of a high spatial resolution satellite soil moisture product over the Continental United States. Journal of Hydrology, 2020, 588, 125043.	5.4	32
50	Radiometric measurements over bare and vegetated fields at 1.4-GHz and 5-GHz frequencies. Remote Sensing of Environment, 1982, 12, 295-311.	11.0	31
51	First Evaluation of Aquarius Soil Moisture Products UsingIn SituObservations and GLDAS Model Simulations. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2015, 8, 5511-5525.	4.9	31
52	Passive/active microwave soil moisture change disaggregation using SMAPVEX12 data. Journal of Hydrology, 2019, 574, 1085-1098.	5.4	29
53	Comparison of Airborne Passive and Active L-Band System (PALS) Brightness Temperature Measurements to SMOS Observations During the SMAP Validation Experiment 2012 (SMAPVEX12). IEEE Geoscience and Remote Sensing Letters, 2015, 12, 801-805.	3.1	28
54	The Texas Soil Observation Network:A Comprehensive Soil Moisture Dataset for Remote Sensing and Land Surface Model Validation. Vadose Zone Journal, 2019, 18, 1-20.	2.2	28

#	Article	IF	Citations
55	Initial Images of the Synthetic Aperture Radiometer 2D-STAR. IEEE Transactions on Geoscience and Remote Sensing, 2007, 45, 3623-3632.	6.3	27
56	A global 1â€km downscaled SMAP soil moisture product based on thermal inertia theory. Vadose Zone Journal, 2022, 21, .	2.2	26
57	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
58	Assessing the SMOS Soil Moisture Retrieval Parameters With High-Resolution NAFE'06 Data. IEEE Geoscience and Remote Sensing Letters, 2009, 6, 635-639.	3.1	25
59	Retrieving soil moisture for non-forested areas using PALS radiometer measurements in SMAPVEX12 field campaign. Remote Sensing of Environment, 2016, 184, 86-100.	11.0	25
60	Validation of SMAP Soil Moisture Products Using Ground-Based Observations for the Paddy Dominated Tropical Region of India. IEEE Transactions on Geoscience and Remote Sensing, 2019, 57, 8479-8491.	6.3	25
61	Passive Polarimetric Microwave Signatures Observed Over Antarctica. IEEE Transactions on Geoscience and Remote Sensing, 2010, 48, 1059-1075.	6.3	24
62	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
63	The Soil Moisture Active Passive Experiments: Validation of the SMAP Products in Australia. IEEE Transactions on Geoscience and Remote Sensing, 2021, 59, 2922-2939.	6.3	19
64	Estimating vegetation water content during the Soil Moisture Active Passive Validation Experiment 2016. Journal of Applied Remote Sensing, 2019, 13, 1.	1.3	19
65	Modeling L-Band Synthetic Aperture Radar Data Through Dielectric Changes in Soil Moisture and Vegetation Over Shrublands. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2017, 10, 4753-4762.	4.9	16
66	Observations of Land Surface Passive Polarimetry With the WindSat Instrument. IEEE Transactions on Geoscience and Remote Sensing, 2007, 45, 2019-2028.	6.3	15
67	Multiscale Surface Roughness for Improved Soil Moisture Estimation. IEEE Transactions on Geoscience and Remote Sensing, 2020, 58, 5264-5276.	6.3	15
68	Soil Moisture Active/Passive (SMAP) L-Band Microwave Radiometer Post-Launch Calibration Upgrade. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2019, 12, 1647-1657.	4.9	14
69	Toward P-Band Passive Microwave Sensing of Soil Moisture. IEEE Geoscience and Remote Sensing Letters, 2021, 18, 504-508.	3.1	14
70	Passive and Active L-Band System and Observations during the 2007 CLASIC Campaign. , 2008, , .		12
71	Activeâ€“Passive Soil Moisture Retrievals During the SMAP Validation Experiment 2012. IEEE Geoscience and Remote Sensing Letters, 2016, 13, 475-479.	3.1	12
72	Evaluation of the Tauâ€“Omega Model for Passive Microwave Soil Moisture Retrieval Using SMAPEx Datasets. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2018, 11, 888-895.	4.9	12

#	Article	IF	Citations
73	Soil Moisture Retrieval Using a Two-Dimensional L-Band Synthetic Aperture Radiometer in a Semiarid Environment. IEEE Transactions on Geoscience and Remote Sensing, 2010, 48, 4273-4284.	6.3	11
74	Validation of SMAP L2 passive-only soil moisture products using upscaled in situ measurements collected in Twente, the Netherlands. Hydrology and Earth System Sciences, 2021, 25, 473-495.	4.9	10
75	Effect of Rainfall Events on SMAP Radiometer-Based Soil Moisture Accuracy Using Core Validation Sites. Journal of Hydrometeorology, 2020, 21, 255-264.	1.9	9
76	Impact of random and periodic surface roughness on P- and L-band radiometry. Remote Sensing of Environment, 2022, 269, 112825.	11.0	8
77	Evaluation of the tau-omega model over bare and wheat-covered flat and periodic soil surfaces at P- and L-band. Remote Sensing of Environment, 2022, 273, 112960.	11.0	8
78	SCS URBAN CURVE NUMBERS FROM A LANDSAT DATA BASE. Journal of the American Water Resources Association, 1981, 17, 857-862.	2.4	7
79	Survey of applications of passive microwave remote sensing for soil moisture in the U.S.S.R.. Eos, 1982, 63, 497-499.	0.1	7
80	Intercomparison of SMAP, SMOS and Aquarius L-band brightness temperature observations. , 2016, , .		3
81	Soil moisture retrieval over a site of intensive agricultural production using airborne radiometer data. International Journal of Applied Earth Observation and Geoinformation, 2021, 97, 102287.	2.8	3
82	Towards validation of SMAP: SMAPEX-4 & -5. , 2016, , .		2
83	Calibration and validation of the SMAP L-band radiometer. , 2016, , .		1
84	Hydrology of disasters. Eos, 1991, 72, 196-196.	0.1	0
85	Jackson receives 2003 Hydrology Section Award. Eos, 2004, 85, 117.	0.1	0
86	Planning for a Soil Moisture Satellite Mission: SMAP Algorithms & Cal/Val Workshop; Oxnard, California, 9-11 June 2009. Eos, 2009, 90, 300-300.	0.1	0
87	Combined active and Passive microwave remote sensing of Soil Moisture for vegetated surfaces at L-band. , 2016, , .		0