M H Cosh

List of Publications by Citations

220 papers	**9,026** citations
51 h-index	**90** g-index
252 ext. papers	**10,785** ext. citations
6 avg, IF	**6.21** L-index

#	Paper	IF	Citations
220	Vegetation water content mapping using Landsat data derived normalized difference water index for corn and soybeans. *Remote Sensing of Environment*, **2004**, 92, 475-482	13.2	505
219	Validation of Advanced Microwave Scanning Radiometer Soil Moisture Products. *IEEE Transactions on Geoscience and Remote Sensing*, **2010**, 48, 4256-4272	8.1	426
218	Upscaling sparse ground-based soil moisture observations for the validation of coarse-resolution satellite soil moisture products. *Reviews of Geophysics*, **2012**, 50,	23.1	387
217	Validation of SMAP surface soil moisture products with core validation sites. *Remote Sensing of Environment*, **2017**, 191, 215-231	13.2	352
216	. *IEEE Transactions on Geoscience and Remote Sensing*, **2016**, 54, 4994-5007	8.1	330
215	The USDA Natural Resources Conservation Service Soil Climate Analysis Network (SCAN). *Journal of Atmospheric and Oceanic Technology*, **2007**, 24, 2073-2077	2	297
214	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	8.1	277
213	State of the Art in Large-Scale Soil Moisture Monitoring. *Soil Science Society of America Journal*, **2013**, 77, 1888-1919	2.5	268
212	Watershed scale temporal and spatial stability of soil moisture and its role in validating satellite estimates. *Remote Sensing of Environment*, **2004**, 92, 427-435	13.2	212
211	Development and Assessment of the SMAP Enhanced Passive Soil Moisture Product. *Remote Sensing of Environment*, **2018**, 204, 931-941	13.2	188
210	Temporal persistence and stability of surface soil moisture in a semi-arid watershed. *Remote Sensing of Environment*, **2008**, 112, 304-313	13.2	180
209	. *IEEE Transactions on Geoscience and Remote Sensing*, **2015**, 53, 2784-2801	8.1	162
208	Estimating Spatial Sampling Errors in Coarse-Scale Soil Moisture Estimates Derived from Point-Scale Observations. *Journal of Hydrometeorology*, **2010**, 11, 1423-1429	3.7	159
207	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	6	156
206	Deriving land surface temperature from Landsat 5 and 7 during SMEX02/SMACEX. *Remote Sensing of Environment*, **2004**, 92, 521-534	13.2	153
205	Temporal Stability of Soil Water Contents: A Review of Data and Analyses. *Vadose Zone Journal*, **2012**, 11, vzj2011.0178	2.7	142
204	Assessment of the SMAP Level-4 Surface and Root-Zone Soil Moisture Product Using In Situ Measurements. *Journal of Hydrometeorology*, **2017**, 18, 2621-2645	3.7	139

185	On the discrepancy between eddy covariance and lysimetry-based surface flux measurements under strongly advective conditions. *Advances in Water Resources*, **2012**, 50, 62-78	4.7	67
184	Surface and profile soil moisture spatio-temporal analysis during an excessive rainfall period in the Southern Great Plains, USA. *Catena*, **2009**, 78, 159-169	5.8	66
183	Modeling and assimilation of root zone soil moisture using remote sensing observations in Walnut Gulch Watershed during SMEX04. *Remote Sensing of Environment*, **2008**, 112, 415-429	13.2	66
182	SMAP soil moisture drying more rapid than observed in situ following rainfall events. *Geophysical Research Letters*, **2016**, 43, 8068-8075	4.9	63
181	. *IEEE Transactions on Geoscience and Remote Sensing*, **2013**, 51, 347-363	8.1	62
180	. *IEEE Transactions on Geoscience and Remote Sensing*, **2011**, 49, 3167-3179	8.1	61
179	Evaluation of several calibration procedures for a portable soil moisture sensor. *Journal of Hydrology*, **2013**, 498, 335-344	6	60
178	Effective tree scattering and opacity at L-band. *Remote Sensing of Environment*, **2012**, 118, 1-9	13.2	60
177	Estimating surface soil moisture from SMAP observations using a Neural Network technique. *Remote Sensing of Environment*, **2018**, 204, 43-59	13.2	59
176	Passive Microwave Soil Moisture Downscaling Using Vegetation Index and Skin Surface Temperature. *Vadose Zone Journal*, **2013**, 12, vzj2013.05.0089	2.7	57
175	Combined Passive and Active Microwave Observations of Soil Moisture During CLASIC. *IEEE Geoscience and Remote Sensing Letters*, **2009**, 6, 644-648	4.1	55
174	Version 4 of the SMAP Level-4 Soil Moisture Algorithm and Data Product. *Journal of Advances in Modeling Earth Systems*, **2019**, 11, 3106-3130	7.1	52
173	Calibration and Validation of the COSMOS Rover for Surface Soil Moisture Measurement. *Vadose Zone Journal*, **2014**, 13, 1-8	2.7	52
172	Multi-scale temporal stability analysis of surface and subsurface soil moisture within the Upper Cedar Creek Watershed, Indiana. *Catena*, **2012**, 95, 91-103	5.8	52
171	Scaled spatial variability of soil moisture fields. *Geophysical Research Letters*, **2007**, 34,	4.9	51
170	Aircraft based soil moisture retrievals under mixed vegetation and topographic conditions. *Remote Sensing of Environment*, **2008**, 112, 375-390	13.2	51
169	Validation and scaling of soil moisture in a semi-arid environment: SMAP validation experiment 2015 (SMAPVEX15). *Remote Sensing of Environment*, **2017**, 196, 101-112	13.2	49
168	Field scale spatiotemporal analysis of surface soil moisture for evaluating point-scale in situ networks. *Geoderma*, **2012**, 170, 195-205	6.7	47

167	Surface Soil Moisture Retrieval Using the L-Band Synthetic Aperture Radar Onboard the Soil Moisture Active-Passive Satellite and Evaluation at Core Validation Sites. *IEEE Transactions on Geoscience and Remote Sensing*, **2017**, Volume 55, 1897-1914	8.1	46
166	Dew frequency, duration, amount, and distribution in corn and soybean during SMEX05. *Agricultural and Forest Meteorology*, **2009**, 149, 11-24	5.8	46
165	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	13.2	45
164	The Soil Moisture Active Passive Marena, Oklahoma, In Situ Sensor Testbed (SMAP-MOISST): Testbed Design and Evaluation of In Situ Sensors. *Vadose Zone Journal*, **2016**, 15, 1-11	2.7	42
163	Assessing SMAP Soil Moisture Scaling and Retrieval in the Carman (Canada) Study Site. *Vadose Zone Journal*, **2018**, 17, 180132	2.7	42
162	Different Rates of Soil Drying after Rainfall Are Observed by the SMOS Satellite and the South Fork in situ Soil Moisture Network. *Journal of Hydrometeorology*, **2015**, 16, 889-903	3.7	40
161	Soil Moisture Model Calibration and Validation: An ARS Watershed on the South Fork Iowa River. *Journal of Hydrometeorology*, **2015**, 16, 1087-1101	3.7	39
160	Comparison of microwave remote sensing and land surface modeling for surface soil moisture climatology estimation. *Remote Sensing of Environment*, **2020**, 242, 111756	13.2	39
159	. *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*, **2015**, 8, 4345-4354	4.7	38
158	A roadmap for high-resolution satellite soil moisture applications confronting product characteristics with user requirements. *Remote Sensing of Environment*, **2021**, 252, 112162	13.2	38
157	A Time-Series Approach to Estimating Soil Moisture From Vegetated Surfaces Using L-Band Radar Backscatter. *IEEE Transactions on Geoscience and Remote Sensing*, **2017**, 55, 3186-3193	8.1	36
156	Evaluation of SMOS soil moisture products over the CanEx-SM10 area. *Journal of Hydrology*, **2015**, 520, 254-267	6	36
155	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	13.2	36
154	. *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*, **2018**, 11, 209-219	4.7	35
153	Long term analysis of PALS soil moisture campaign measurements for global soil moisture algorithm development. *Remote Sensing of Environment*, **2012**, 121, 309-322	13.2	35
152	Field-scale moisture estimates using COSMOS sensors: A validation study with temporary networks and Leaf-Area-Indices. *Journal of Hydrology*, **2014**, 519, 637-643	6	34
151	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	13.2	33
150	Sub-pixel reflectance unmixing in estimating vegetation water content and dry biomass of corn and soybeans cropland using normalized difference water index (NDWI) from satellites. *International Journal of Remote Sensing*, **2009**, 30, 2075-2104	3.1	33

149	Aspects of soil moisture variability in the Washita P2 study region. *Journal of Geophysical Research*, **1999**, 104, 19751-19757		33
148	. *IEEE Transactions on Geoscience and Remote Sensing*, **2020**, 58, 3894-3905	8.1	32
147	Relating coccidioidomycosis (valley fever) incidence to soil moisture conditions. *GeoHealth*, **2017**, 1, 51-63		30
146	Downscaling of Surface Soil Moisture Retrieval by Combining MODIS/Landsat and In Situ Measurements. *Remote Sensing*, **2018**, 10, 210	5	30
145	Validation of SMAP soil moisture for the SMAPVEX15 field campaign using a hyper-resolution model. *Water Resources Research*, **2017**, 53, 3013-3028	5.4	29
144	Estimating time-dependent vegetation biases in the SMAP soil moisture product. *Hydrology and Earth System Sciences*, **2018**, 22, 4473-4489	5.5	26
143	. *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*, **2019**, 12, 3387-3397	4.7	26
142	Global scale error assessments of soil moisture estimates from microwave-based active and passive satellites and land surface models over forest and mixed irrigated/dryland agriculture regions. *Remote Sensing of Environment*, **2020**, 251, 112052	13.2	26
141	Data Assimilation to extract Soil Moisture Information from SMAP Observations. *Remote Sensing*, **2017**, 9, 1179	5	25
140	Variability of surface soil moisture at the watershed scale. *Water Resources Research*, **2004**, 40,	5.4	25
139	Field and Laboratory Evaluation of the CS655 Soil Water Content Sensor. *Vadose Zone Journal*, **2018**, 17, 170214	2.7	24
138	Retrieving soil moisture for non-forested areas using PALS radiometer measurements in SMAPVEX12 field campaign. *Remote Sensing of Environment*, **2016**, 184, 86-100	13.2	22
137	Assessing the performance of a physically-based soil moisture module integrated within the Soil and Water Assessment Tool. *Environmental Modelling and Software*, **2018**, 109, 329-341	5.2	21
136	Parametric exponentially correlated surface emission model for L-band passive microwave soil moisture retrieval. *Physics and Chemistry of the Earth*, **2015**, 83-84, 65-74	3	20
135	Application of observation operators for field scale soil moisture averages and variances in agricultural landscapes. *Journal of Hydrology*, **2012**, 444-445, 34-50	6	20
134	L-Band Radar Estimation of Forest Attenuation for Active/Passive Soil Moisture Inversion. *IEEE Transactions on Geoscience and Remote Sensing*, **2009**, 47, 3026-3040	8.1	20
133	A Global Assessment of Added Value in the SMAP Level 4 Soil Moisture Product Relative to Its Baseline Land Surface Model. *Geophysical Research Letters*, **2019**, 46, 6604-6613	4.9	19
132	Uncertainty of Reference Pixel Soil Moisture Averages Sampled at SMAP Core Validation Sites. *Journal of Hydrometeorology*, **2019**, 20, 1553-1569	3.7	18

131	Upper washita river experimental watersheds: multiyear stability of soil water content profiles. *Journal of Environmental Quality*, **2014**, 43, 1328-33	3.4	18
130	Seasonal Evaluation of SMAP Soil Moisture in the U.S. Corn Belt. *Remote Sensing*, **2019**, 11, 2488	5	18
129	Modeling soil temperature in a temperate region: A comparison between empirical and physically based methods in SWAT. *Ecological Engineering*, **2019**, 129, 134-143	3.9	17
128	Refinement of SMOS Multiangular Brightness Temperature Toward Soil Moisture Retrieval and Its Analysis Over Reference Targets. *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*, **2015**, 8, 589-603	4.7	17
127	. *IEEE Transactions on Geoscience and Remote Sensing*, **2012**, 50, 1071-1084	8.1	16
126	Soil Moisture Retrieval Using Ground-Based L-Band Passive Microwave Observations in Northeastern USA. *Vadose Zone Journal*, **2014**, 13, vzj2013.06.0101	2.7	16
125	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	2.7	16
124	Synthetic Aperture Radar (SAR) image processing for operational space-based agriculture mapping. *International Journal of Remote Sensing*, **2020**, 41, 7112-7144	3.1	15
123	Calibration of Noah Soil Hydraulic Property Parameters Using Surface Soil Moisture from SMOS and Basinwide In Situ Observations. *Journal of Hydrometeorology*, **2016**, 17, 2275-2292	3.7	15
122	Strengths and weaknesses of temporal stability analysis for monitoring and estimating grid-mean soil moisture in a high-intensity irrigated agricultural landscape. *Water Resources Research*, **2017**, 53, 283-301	5.4	15
121	Remote Sensing for Vadose Zone Hydrology—A Synthesis from the Vantage Point. *Vadose Zone Journal*, **2013**, 12, vzj2013.07.0128	2.7	15
120	Soil heat flux variability influenced by row direction in irrigated cotton. *Advances in Water Resources* , **2012**, 50, 31-40	4.7	15
119	Multi-time scale analysis of the spatial representativeness of soil moisture data within satellite footprints. *Journal of Geophysical Research D: Atmospheres*, **2018**, 123, 3-21	4.4	15
118	Extending the soil moisture data record of the U.S. Climate Reference Network (USCRN) and Soil Climate Analysis Network (SCAN). *Advances in Water Resources*, **2015**, 79, 80-90	4.7	14
117	Observations of dew amount using in situ and satellite measurements in an agricultural landscape. *Agricultural and Forest Meteorology*, **2009**, 149, 1082-1086	5.8	14
116	Microscale structural aspects of vegetation density variability. *Journal of Hydrology*, **2003**, 276, 128-136	6	14
115	L-band vegetation optical depth as an indicator of plant water potential in a temperate deciduous forest stand. *Biogeosciences*, **2021**, 18, 739-753	4.6	14
114	Validating the BERMS in situ Soil Water Content Data Record with a Large Scale Temporary Network. *Vadose Zone Journal*, **2013**, 12, vzj2012.0151	2.7	13

113	Evaluation of SMAP Freeze/Thaw Retrieval Accuracy at Core Validation Sites in the Contiguous United States. *Remote Sensing*, **2018**, 10, 1483	5	13
112	Comparing AMSR-E soil moisture estimates to the extended record of the U.S. Climate Reference Network (USCRN). *Advances in Water Resources*, **2015**, 85, 79-85	4.7	12
111	Estimating vegetation water content during the Soil Moisture Active Passive Validation Experiment 2016. *Journal of Applied Remote Sensing*, **2019**, 13, 1	1.4	12
110	Mapping high-resolution soil moisture and properties using distributed temperature sensing data and an adaptive particle batch smoother. *Water Resources Research*, **2016**, 52, 7690-7710	5.4	12
109	SMAP Detects Soil Moisture Under Temperate Forest Canopies. *Geophysical Research Letters*, **2020**, 47, e2020GL089697	4.9	11
108	. *IEEE Transactions on Geoscience and Remote Sensing*, **2020**, 58, 5264-5276	8.1	11
107	Using machine learning to produce near surface soil moisture estimates from deeper in situ records at U.S. Climate Reference Network (USCRN) locations: Analysis and applications to AMSR-E satellite validation. *Advances in Water Resources*, **2016**, 98, 122-131	4.7	11
106	Soil heat flux calculation for sunlit and shaded surfaces under row crops: 2. Model test. *Agricultural and Forest Meteorology*, **2016**, 216, 129-140	5.8	11
105	Surface soil water content spatial organization within irrigated and non-irrigated agricultural fields. *Advances in Water Resources*, **2012**, 50, 55-61	4.7	11
104	Soil moisture mapping using ESTAR under dry conditions from the Southern Great Plains Experiment (SGP99). *IEEE Transactions on Geoscience and Remote Sensing*, **2003**, 41, 2392-2397	8.1	11
103	Monitoring crop water content for corn and soybean fields through data fusion of MODIS and Landsat measurements in Iowa. *Agricultural Water Management*, **2020**, 227, 105844	5.9	11
102	Evaluation of Remotely-Sensed and Model-Based Soil Moisture Products According to Different Soil Type, Vegetation Cover and Climate Regime Using Station-Based Observations over Turkey. *Remote Sensing*, **2019**, 11, 1875	5	10
101	Potential of bias correction for downscaling passive microwave and soil moisture data. *Journal of Geophysical Research D: Atmospheres*, **2015**, 120, 6460-6479	4.4	10
100	Effect of dew on aircraft-based passive microwave observations over an agricultural domain. *Journal of Applied Remote Sensing*, **2012**, 6, 063571-1	1.4	10
99	Satellite remote sensing of land surface temperatures: Application of the atmospheric correction method and split-window technique to data of ARM-SGP site. *International Journal of Remote Sensing*, **2002**, 23, 5177-5192	3.1	10
98	A long term global daily soil moisture dataset derived from AMSR-E and AMSR2 (2002-2019). *Scientific Data*, **2021**, 8, 143	8.2	10
97	Toward operational validation systems for global satellite-based terrestrial essential climate variables. *International Journal of Applied Earth Observation and Geoinformation*, **2021**, 95, 102240	7.3	10
96	. *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*, **2021**, 14, 4946-4965	4.7	10

95	Uncertainty in Soil Moisture Retrievals: an Ensemble Approach using SMOS L-Band Microwave Data. *Remote Sensing of Environment*, **2019**, 229, 133-147	13.2	9
94	Remote Sensing of Drivers of Spring Snowmelt Flooding in the North Central U.S.. *Springer Remote Sensing/photogrammetry*, **2017**, 21-45	0.2	9
93	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	4.7	9
92	Sentinel-1 soil moisture at 1 km resolution: a validation study. *Remote Sensing of Environment*, **2021** , 263, 112554	13.2	9
91	Combined Radar-Radiometer Surface Soil Moisture and Roughness Estimation. *IEEE Transactions on Geoscience and Remote Sensing*, **2017**, 55, 4098-4110	8.1	8
90	Data-driven stochastic model for basin and sub-grid variability of SMAP satellite soil moisture. *Journal of Hydrology*, **2019**, 576, 85-97	6	8
89	Field evaluation of portable soil water content sensors in a sandy loam. *Vadose Zone Journal*, **2020**, 19, e20033	2.7	8
88	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	8.1	8
87	Global Soil Moisture Retrievals From the Chinese FY-3D Microwave Radiation Imager. *IEEE Transactions on Geoscience and Remote Sensing*, **2021**, 59, 4018-4032	8.1	8
86	A Five-Year Evaluation of SMOS Level 2 Soil Moisture in the Corn Belt of the United States. *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*, **2018**, 11, 4664-4675	4.7	8
85	Incorporation of Stem Water Content into Vegetation Optical Depth for Crops and Woodlands. *Remote Sensing*, **2018**, 10, 273	5	7
84	The SMAP in situ soil moisture sensor testbed: Comparing in situ sensors for satellite validation **2010**,		7
83	ComRAD active / passive microwave measurement of tree canopies **2007**,		7
82	Deploying temporary networks for upscaling of sparse network stations. *International Journal of Applied Earth Observation and Geoinformation*, **2016**, 52, 433-444	7.3	7
81	Temporal transferability of soil moisture calibration equations. *Journal of Hydrology*, **2018**, 556, 349-3586		7
80	Sentinel-1 & Sentinel-2 for SOIL Moisture Retrieval at Field Scale **2018**,		7
79	Nonparametric triple collocation. *Water Resources Research*, **2017**, 53, 5516-5530	5.4	6
78	. *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*, **2019**, 12, 3233-3246	4.7	6

77	Vegetation–Soil moisture coupling metrics from dual-polarization microwave radiometry using regularization. *Remote Sensing of Environment*, **2019**, 231, 111257	13.2	6
76	Vegetation water content mapping in a diverse agricultural landscape: National Airborne Field Experiment 2006. *Journal of Applied Remote Sensing*, **2010**, 4, 043532	1.4	6
75	Validation of AMSR-E soil moisture algorithms with ground based networks **2007**,		6
74	. *IEEE Transactions on Geoscience and Remote Sensing*, **2020**, 58, 6181-6196	8.1	5
73	Evaluation of the validated Soil Moisture product from the SMAP radiometer **2016**,		5
72	L-band active / passive time series measurements over a growing season using the ComRAD ground-based SMAP simulator **2013**,		5
71	A comparison between two algorithms for the retrieval of soil moisture using AMSR-E data. *Frontiers in Earth Science*, **2015**, 3,	3.5	5
70	Evaluation of radar vegetation indices for vegetation water content estimation using data from a ground-based SMAP simulator **2015**,		5
69	**2006**,		5
68	Time changes in spatial structure of surface variability in the Southern Great Plains. *Advances in Water Resources*, **2003**, 26, 407-415	4.7	5
67	Assessment of 24 soil moisture datasets using a new in situ network in the Shandian River Basin of China. *Remote Sensing of Environment*, **2022**, 271, 112891	13.2	5
66	A global 1-km downscaled SMAP soil moisture product based on thermal inertia theory. *Vadose Zone Journal*,	2.7	5
65	Upscaling Gross Primary Production in Corn-Soybean Rotation Systems in the Midwest. *Remote Sensing*, **2019**, 11, 1688	5	4
64	An Intercomparison Study of Algorithms for Downscaling SMAP Radiometer Soil Moisture Retrievals. *Journal of Hydrometeorology*, **2020**, 21, 1761-1775	3.7	4
63	The backscattering contribution of soybean pods at L-band. *Remote Sensing of Environment*, **2020**, 248, 111977	13.2	4
62	C-band synthetic aperture radar (SAR) imagery for the classification of diverse cropping systems. *International Journal of Remote Sensing*, **2020**, 41, 9628-9649	3.1	4
61	Impact of vegetation water content information on soil moisture retrievals in agricultural regions: An analysis based on the SMAPVEX16-MicroWEX dataset. *Remote Sensing of Environment*, **2021**, 265, 112623	13.2	4
60	Effect of Rainfall Events on SMAP Radiometer-Based Soil Moisture Accuracy Using Core Validation Sites. *Journal of Hydrometeorology*, **2020**, 21, 255-264	3.7	3

59	Assessment of version 4 of the SMAP passive soil moisture standard product **2017**,		3
58	AMSR-E Soil Moisture Disaggregation Using MODIS and NLDAS Data. *Geophysical Monograph Series*, **2014**, 277-304	1.1	3
57	Fusing microwave and optical satellite observations for high resolution soil moisture data products **2017**,		3
56	Development and validation of the SMAP enhanced passive soil moisture product **2017**,		3
55	Sentinel-1 high resolution soil moisture **2017**,		3
54	Seasonal parameterizations of the tau-omega model using the ComRAD ground-based SMAP simulator **2014**,		3
53	Utilization of airborne and in situ data obtained in SGP99, SMEX02, CLASIC and SMAPVEX08 Field Campaigns for SMAP Soil Moisture Algorithm Development and Validation **2010**,		3
52	Estimation of canopy attenuation for active/passive microwave soil moisture retrieval algorithms **2008**,		3
51	Validation of SMAP Soil Moisture at Terrestrial National Ecological Observatory Network (NEON) Sites Show Potential for Soil Moisture Retrieval in Forested Areas. *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*, **2021**, 14, 10903-10918	4.7	3
50	. *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*, **2020**, 13, 6457-6472	4.7	3
49	Understanding temporal stability: a long-term analysis of USDA ARS watersheds. *International Journal of Digital Earth*, **2021**, 14, 1243-1254	3.9	3
48	Developing a strategy for the national coordinated soil moisture monitoring network. *Vadose Zone Journal*, **2021**, 20, e20139	2.7	3
47	Seasonal Dependence of SMAP Radiometer-Based Soil Moisture Performance as Observed Over Core Validation Sites **2019**,		3
46	Self-Correction of Soil Moisture Ocean Salinity (SMOS) Soil Moisture Dry Bias. *Canadian Journal of Remote Sensing*, **2019**, 45, 814-828	1.8	3
45	The USDA-ARS Experimental Watershed Network: Evolution, Lessons Learned, Societal Benefits, and Moving Forward. *Water Resources Research*, **2021**, 57, e2019WR026473	5.4	3
44	. *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*, **2021**, 14, 2577-2592	4.7	3
43	. *IEEE Transactions on Geoscience and Remote Sensing*, **2021**, 59, 991-1011	8.1	3
42	Performance Evaluation of UAVSAR and Simulated NISAR Data for Crop/Noncrop Classification Over Stoneville, MS. *Earth and Space Science*, **2021**, 8, e2020EA001363	3.1	3

41	**2017**,		2
40	Strategies for validating satellite soil moisture products using in situ networks: Lessons from the USDA-ARS watersheds **2017**,		2
39	**2017**,		2
38	. *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*, **2019**, 12, 3184-3193	4.7	2
37	Assimilation of Satellite Soil Moisture Retrievals into a Hydrologic Model for Improving River Discharge. *Geophysical Monograph Series*, **2014**, 319-329	1.1	2
36	Microwave soil moisture retrieval under trees using a modified tau-omega model **2009**,		2
35	Microwave Soil Moisture Retrieval Under Trees **2008**,		2
34	Forest Canopy Effects on the Estimation of Soil Moisture at L-Band **2008**,		2
33	Soil moisture experiments 2004 (SMEX04) polarimetric scanning radiometer, AMSR-E and heterogeneous landscapes		2
32	Assessing the Impact of Soil Layer Depth Specification on the Observability of Modeled Soil Moisture and Brightness Temperature. *Journal of Hydrometeorology*, **2020**, 21, 2041-2060	3.7	2
31	Field-Scale Soil Moisture Retrieval Using PALSAR-2 Polarimetric Decomposition and Machine Learning. *Agronomy*, **2021**, 11, 35	3.6	2
30	Building a One-Stop Shop for Soil Moisture Information. *Eos*, **2019**, 100,	1.5	2
29	. *IEEE Geoscience and Remote Sensing Letters*, **2021**, 18, 1530-1534	4.1	2
28	. *IEEE Geoscience and Remote Sensing Letters*, **2021**, 1-5	4.1	2
27	Surface Soil Moisture Retrievals Under Forest Canopy for L-Band SAR Observations Across a Wide Range of Incidence Angles by Inverting a Physical Scattering Model. *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*, **2021**, 14, 1741-1753	4.7	2
26	Comparison between Dense L-Band and C-Band Synthetic Aperture Radar (SAR) Time Series for Crop Area Mapping over a NISAR Calibration-Validation Site. *Agronomy*, **2021**, 11, 273	3.6	2
25	Intercalibration of Low Frequency Brightness Temperature Measurements For Long-Term Soil Moisture Record **2018**,		2
24	Multi-frequency radiometer-based soil moisture retrieval algorithm parametrization using in situ validation sites **2017**,		1

23	Assessing Near-Surface Soil Moisture Assimilation Impacts on Modeled Root-Zone Moisture for an Australian Agricultural Landscape. *Geophysical Monograph Series*, **2014**, 305-317	1.1	1
22	**2017**,		1
21	L-band radar backscattering from a mature corn canopy: Effect of cobs **2014**,		1
20	SMOS Soil Moisture validation with U.S. in situ networks **2011**,		1
19	Evaluation of SMAP level 2 soil moisture algorithms using SMOS data **2011**,		1
18	Evolution of the variability of surface temperature and vegetation density in the great plains. *Advances in Water Resources*, **2007**, 30, 1094-1104	4.7	1
17	Surface Soil Moisture Temporal Persistence and Stability in a Semi-Arid Watershed **2006**,		1
16	Analyzing Effects of Crops on SMAP Satellite-Based Soil Moisture Using a Rainfall-Runoff Model in the U.S. Corn Belt. *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*, **2022**, 15, 247-260	4.7	1
15	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*, **2021**, 1-1	4.7	1
14	Tracking Red Palm Mite Damage in the Western Hemisphere Invasion with Landsat Remote Sensing Data. *Insects*, **2020**, 11,	2.8	1
13	Comparison of In Situ Soil Moisture Measurements: An Examination of the Neutron and Dielectric Measurements within the Illinois Climate Network. *Journal of Atmospheric and Oceanic Technology*, **2016**, 33, 1749-1758	2	1
12	Surface soil moisture retrieval using L-band SMAP SAR data and its validation **2016**,		1
11	Development and validation of the GCOM-W AMSR2 soil moisture product **2016**,		1
10	Physics-Based Retrieval of Surface Roughness Parameters for Bare Soils from Combined Active-Passive Microwave Signatures **2018**,		1
9	Evaluating NISAR§ cropland mapping algorithm over the conterminous United States using Sentinel-1 data. *Remote Sensing of Environment*, **2021**, 260, 112472	13.2	1
8	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**, 1-1	4.7	1
7	An inverse dielectric mixing model at 50 MHz that considers soil organic carbon. *Hydrology and Earth System Sciences*, **2021**, 25, 6407-6420	5.5	1
6	Studying Soil Moisture and Temperature on the Tibetan Plateau: Initial Results of an Integrated, Multiscale Observatory. *IEEE Geoscience and Remote Sensing Magazine*, **2020**, 8, 18-36	8.9	0

5	Parameterization of Vegetation Scattering Albedo in the Tau-Omega Model for Soil Moisture Retrieval on Croplands. *Remote Sensing*, **2020**, 12, 2939	5	0
4	High-Resolution Soil-Moisture Maps Over Landslide Regions in Northern California Grassland Derived From SAR Backscattering Coefficients. *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*, **2021**, 14, 4547-4560	4.7	0
3	Some Issues in Validating Satellite-Based Soil Moisture Retrievals from SMAP with in Situ Observations. *Geophysical Monograph Series*, **2014**, 245-253	1.1	
2	Monitoring water from space. *Eos*, **2012**, 93, 203-204	1.5	
1	From Standard Weather Stations to Virtual Micro-Meteorological Towers in Ungauged Sites: Modeling Tool for Surface Energy Fluxes, Evapotranspiration, Soil Temperature, and Soil Moisture Estimations. *Remote Sensing*, **2021**, 13, 1271	5	