

Development and assessment of the SMAP enhanced pa

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Citation Report

#	ARTICLE	IF	CITATIONS
1	Data Assimilation to Extract Soil Moisture Information from SMAP Observations. <i>Remote Sensing</i> , 2017, 9, 1179.	1.8	25
2	Soil Moisture Sensing Using Spaceborne GNSS Reflections: Comparison of CYGNSS Reflectivity to SMAP Soil Moisture. <i>Geophysical Research Letters</i> , 2018, 45, 4049-4057.	1.5	227
3	An assessment of the differences between spatial resolution and grid size for the SMAP enhanced soil moisture product over homogeneous sites. <i>Remote Sensing of Environment</i> , 2018, 207, 65-70.	4.6	46
4	The Error Structure of the SMAP Single and Dual Channel Soil Moisture Retrievals. <i>Geophysical Research Letters</i> , 2018, 45, 758-765.	1.5	37
5	GCOM-W AMSR2 Soil Moisture Product Validation Using Core Validation Sites. <i>IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing</i> , 2018, 11, 209-219.	2.3	44
6	Assessment of the SMAP Soil Emission Model and Soil Moisture Retrieval Algorithms for a Tibetan Desert Ecosystem. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2018, 56, 3786-3799.	2.7	27
7	Improved Hydrological Simulation Using SMAP Data: Relative Impacts of Model Calibration and Data Assimilation. <i>Journal of Hydrometeorology</i> , 2018, 19, 727-741.	0.7	38
8	Estimating Soil Evaporation Using Drying Rates Determined from Satellite-Based Soil Moisture Records. <i>Remote Sensing</i> , 2018, 10, 1945.	1.8	9
9	Use of Satellite Soil Moisture to Diagnose Climate Model Representations of European Soil Moisture–Air Temperature Coupling Strength. <i>Geophysical Research Letters</i> , 2018, 45, 12,884.	1.5	15
10	Polarization Decomposition and Temperature Bias Resolution for Smap Passive Soil Moisture Retrieval Using Time Series Brightness Temperature Observations. , 2018, , .		0
11	Integration of SMAP and SMOS Observations. , 2018, , .		0
12	Towards Estimating Land Evaporation at Field Scales Using GLEAM. <i>Remote Sensing</i> , 2018, 10, 1720.	1.8	30
13	Assessing SMAP Soil Moisture Scaling and Retrieval in the Carman (Canada) Study Site. <i>Vadose Zone Journal</i> , 2018, 17, 1-14.	1.3	59
14	Quantifying Drought Propagation from Soil Moisture to Vegetation Dynamics Using a Newly Developed Ecohydrological Land Reanalysis. <i>Remote Sensing</i> , 2018, 10, 1197.	1.8	20
15	Disaggregating Soil Moisture to Finer Spatial Resolutions: A Comparison of Alternatives. <i>Water Resources Research</i> , 2018, 54, 9456-9483.	1.7	4
16	Evaluation of SMAP Freeze/Thaw Retrieval Accuracy at Core Validation Sites in the Contiguous United States. <i>Remote Sensing</i> , 2018, 10, 1483.	1.8	15
17	Global downscaling of remotely sensed soil moisture using neural networks. <i>Hydrology and Earth System Sciences</i> , 2018, 22, 5341-5356.	1.9	48
18	Downscaling of SMAP Soil Moisture Using Land Surface Temperature and Vegetation Data. <i>Vadose Zone Journal</i> , 2018, 17, 1-15.	1.3	57

#	ARTICLE	IF	CITATIONS
19	Use of SMOS L3 Soil Moisture Data: Validation and Drought Assessment for Pernambuco State, Northeast Brazil. <i>Remote Sensing</i> , 2018, 10, 1314.	1.8	26
20	Estimating Basin-scale Water Budgets With SMAP Soil Moisture Data. <i>Water Resources Research</i> , 2018, 54, 4228-4244.	1.7	37
21	Controls on surface soil drying rates observed by SMAP and simulated by the Noah land surface model. <i>Hydrology and Earth System Sciences</i> , 2018, 22, 1649-1663.	1.9	45
22	The Evaluation of SMAP Enhanced Soil Moisture Products Using High-Resolution Model Simulations and In-Situ Observations on the Tibetan Plateau. <i>Remote Sensing</i> , 2018, 10, 535.	1.8	37
23	Use of Cyclone Global Navigation Satellite System (CyGNSS) Observations for Estimation of Soil Moisture. <i>Geophysical Research Letters</i> , 2018, 45, 8272-8282.	1.5	138
24	Estimating time-dependent vegetation biases in the SMAP soil moisture product. <i>Hydrology and Earth System Sciences</i> , 2018, 22, 4473-4489.	1.9	33
25	Sensitivity of CyGNSS Bistatic Reflectivity and SMAP Microwave Radiometry Brightness Temperature to Geophysical Parameters Over Land Surfaces. <i>IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing</i> , 2019, 12, 107-122.	2.3	54
26	Evaluation of real-time global flood modeling with satellite surface inundation observations from SMAP. <i>Remote Sensing of Environment</i> , 2019, 233, 111360.	4.6	29
27	Generation of spatially complete and daily continuous surface soil moisture of high spatial resolution. <i>Remote Sensing of Environment</i> , 2019, 233, 111364.	4.6	116
28	Uncertainty of Reference Pixel Soil Moisture Averages Sampled at SMAP Core Validation Sites. <i>Journal of Hydrometeorology</i> , 2019, 20, 1553-1569.	0.7	24
29	Validation of SMAP Soil Moisture Products Using Ground-Based Observations for the Paddy Dominated Tropical Region of India. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2019, 57, 8479-8491.	2.7	25
30	The Utility of SMAP Soil Moisture and Freeze-Thaw Datasets as Precursors to Spring-Melt Flood Conditions: A Case Study in the Red River of the North Basin. <i>IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing</i> , 2019, 12, 2848-2861.	2.3	12
31	Estimating Live Fuel Moisture Using SMAP L-Band Radiometer Soil Moisture for Southern California, USA. <i>Remote Sensing</i> , 2019, 11, 1575.	1.8	24
32	Utility of soil moisture data products for natural disaster applications. , 2019, , 65-85.		0
33	Exploring SMAP and OCO-2 observations to monitor soil moisture control on photosynthetic activity of global drylands and croplands. <i>Remote Sensing of Environment</i> , 2019, 232, 111314.	4.6	21
34	Evaluating the Operational Application of SMAP for Global Agricultural Drought Monitoring. <i>IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing</i> , 2019, 12, 3387-3397.	2.3	52
35	Vegetation-soil moisture coupling metrics from dual-polarization microwave radiometry using regularization. <i>Remote Sensing of Environment</i> , 2019, 231, 111257.	4.6	11
36	Utilizing Satellite Surface Soil Moisture Data in Calibrating a Distributed Hydrological Model Applied in Humid Regions Through a Multi-Objective Bayesian Hierarchical Framework. <i>Remote Sensing</i> , 2019, 11, 1335.	1.8	12

#	ARTICLE	IF	CITATIONS
37	Investigating the role of antecedent SMAP satellite soil moisture, radar rainfall and MODIS vegetation on runoff production in an agricultural region. <i>Journal of Hydrology</i> , 2019, 579, 124210.	2.3	26
38	Version 4 of the SMAP Level-4 Soil Moisture Algorithm and Data Product. <i>Journal of Advances in Modeling Earth Systems</i> , 2019, 11, 3106-3130.	1.3	104
39	Consistency Between NASS Surveyed Soil Moisture Conditions and SMAP Soil Moisture Observations. <i>Water Resources Research</i> , 2019, 55, 7682-7693.	1.7	10
40	The SMAP and Copernicus Sentinel 1A/B microwave active-passive high resolution surface soil moisture product. <i>Remote Sensing of Environment</i> , 2019, 233, 111380.	4.6	175
41	New Approaches for Removing the Effect of Water Damping on SMAP Freeze/Thaw Mapping. <i>Canadian Journal of Remote Sensing</i> , 2019, 45, 405-422.	1.1	3
42	Length Scales of Hydrological Variability as Inferred from SMAP Soil Moisture Retrievals. <i>Journal of Hydrometeorology</i> , 2019, 20, 2129-2146.	0.7	6
43	Burned area detection and mapping using Sentinel-1 backscatter coefficient and thermal anomalies. <i>Remote Sensing of Environment</i> , 2019, 233, 111345.	4.6	87
44	Examining the Impact of SMAP Soil Moisture Retrievals on Short-Range Weather Prediction under Weakly and Strongly Coupled Data Assimilation with WRF-Noah. <i>Monthly Weather Review</i> , 2019, 147, 4345-4366.	0.5	13
45	State updating of root zone soil moisture estimates of an unsaturated zone metamodel for operational water resources management. <i>Journal of Hydrology X</i> , 2019, 4, 100040.	0.8	11
46	Satellite L ⁴ band vegetation optical depth is directly proportional to crop water in the US Corn Belt. <i>Remote Sensing of Environment</i> , 2019, 233, 111378.	4.6	24
47	A comprehensive validation of the SMAP Enhanced Level-3 Soil Moisture product using ground measurements over varied climates and landscapes. <i>Remote Sensing of Environment</i> , 2019, 223, 82-94.	4.6	79
48	Advances in quantitative remote sensing product validation: Overview and current status. <i>Earth-Science Reviews</i> , 2019, 196, 102875.	4.0	63
49	Spatial Evaluation of Soil Moisture (SM), Land Surface Temperature (LST), and LST-Derived SM Indexes Dynamics during SMAPVEX12. <i>Sensors</i> , 2019, 19, 1247.	2.1	12
50	Comparison of high-resolution airborne soil moisture retrievals to SMAP soil moisture during the SMAP validation experiment 2016 (SMAPVEX16). <i>Remote Sensing of Environment</i> , 2019, 227, 137-150.	4.6	45
51	An Adaptive L^p -Penalization Method to Enhance the Spatial Resolution of Microwave Radiometer Measurements. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2019, 57, 6782-6791.	2.7	21
52	Ground, Proximal, and Satellite Remote Sensing of Soil Moisture. <i>Reviews of Geophysics</i> , 2019, 57, 530-616.	9.0	307
53	An in-situ data based model to downscale radiometric satellite soil moisture products in the Upper Hunter Region of NSW, Australia. <i>Journal of Hydrology</i> , 2019, 572, 820-838.	2.3	26
54	Impact of Soil Moisture Data Resolution on Soil Moisture and Surface Heat Flux Estimates through Data Assimilation: A Case Study in the Southern Great Plains. <i>Journal of Hydrometeorology</i> , 2019, 20, 715-730.	0.7	8

#	ARTICLE	IF	CITATIONS
55	Understanding the Impacts of Soil Moisture Initial Conditions on NWP in the Context of Land-Atmosphere Coupling. <i>Journal of Hydrometeorology</i> , 2019, 20, 793-819.	0.7	44
56	Microwave and Meteorological Fusion: A method of Spatial Downscaling of Remotely Sensed Soil Moisture. <i>IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing</i> , 2019, 12, 1107-1119.	2.3	13
57	Sampling depth of L-band radiometer measurements of soil moisture and freeze-thaw dynamics on the Tibetan Plateau. <i>Remote Sensing of Environment</i> , 2019, 226, 16-25.	4.6	54
58	Spatial evaluation of L-band satellite-based soil moisture products in the upper Huai River basin of China. <i>European Journal of Remote Sensing</i> , 2019, 52, 194-205.	1.7	5
59	Estimating irrigation water use over the contiguous United States by combining satellite and reanalysis soil moisture data. <i>Hydrology and Earth System Sciences</i> , 2019, 23, 897-923.	1.9	89
60	Towards connecting biodiversity and geodiversity across scales with satellite remote sensing. <i>Global Ecology and Biogeography</i> , 2019, 28, 548-556.	2.7	87
61	Seasonal Dependence of SMAP Radiometer-Based Soil Moisture Performance as Observed Over Core Validation Sites. , 2019, , .		5
62	Our Skill in Modeling Mountain Rain and Snow is Bypassing the Skill of Our Observational Networks. <i>Bulletin of the American Meteorological Society</i> , 2019, 100, 2473-2490.	1.7	145
63	Integrated SMAP and SMOS Soil Moisture Observations. , 2019, , .		1
64	Impact of Weak Coupling between Land and Atmosphere Data Assimilation Systems on Environment and Climate Change Canada's Global Deterministic Prediction System. <i>Weather and Forecasting</i> , 2019, 34, 1741-1758.	0.5	3
65	First Evaluation of Topography on GNSS-R: An Empirical Study Based on a Digital Elevation Model. <i>Remote Sensing</i> , 2019, 11, 2556.	1.8	23
66	The Texas Soil Observation Network:A Comprehensive Soil Moisture Dataset for Remote Sensing and Land Surface Model Validation. <i>Vadose Zone Journal</i> , 2019, 18, 1-20.	1.3	28
67	Soil Moisture Data Assimilation to Estimate Irrigation Water Use. <i>Journal of Advances in Modeling Earth Systems</i> , 2019, 11, 3670-3690.	1.3	40
68	A Dielectric Mixing Model Accounting for Soil Organic Matter. <i>Vadose Zone Journal</i> , 2019, 18, 190036.	1.3	24
69	Seasonal Evaluation of SMAP Soil Moisture in the U.S. Corn Belt. <i>Remote Sensing</i> , 2019, 11, 2488.	1.8	27
70	An Approach for Downscaling SMAP Soil Moisture by Combining Sentinel-1 SAR and MODIS Data. <i>Remote Sensing</i> , 2019, 11, 2736.	1.8	31
71	Improving Brightness Temperature Measurements Near Coastal Areas for SMAP. <i>IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing</i> , 2019, 12, 4578-4588.	2.3	9
72	Refining SMAP Soil Roughness Parameterization in the U. S. Corn Belt. , 2019, , .		0

#	ARTICLE	IF	CITATIONS
73	SMAP Vegetation Optical Depth is Directly Proportional to Crop Water in the US Corn Belt. , 2019, , .		0
74	Evaluation of Two SMAP Soil Moisture Retrievals Using Modeled- and Ground-Based Measurements. Remote Sensing, 2019, 11, 2891.	1.8	10
75	Evaluation of SMAP downscaled brightness temperature using SMAPEX-4/5 airborne observations. Remote Sensing of Environment, 2019, 221, 363-372.	4.6	9
76	Downscaling SMAP Radiometer Soil Moisture Over the CONUS Using an Ensemble Learning Method. Water Resources Research, 2019, 55, 324-344.	1.7	122
77	A Value-Consistent Method for Downscaling SMAP Passive Soil Moisture With MODIS Products Using Self-Adaptive Window. IEEE Transactions on Geoscience and Remote Sensing, 2020, 58, 913-924.	2.7	26
78	Soil Moisture Information Content in SMOS, SMAP, AMSR2, and ASCAT Level-1 Data Over Selected <i>In Situ</i> Sites. IEEE Geoscience and Remote Sensing Letters, 2020, 17, 1213-1217.	1.4	8
79	A Physically Based Soil Moisture Index From Passive Microwave Brightness Temperatures for Soil Moisture Variation Monitoring. IEEE Transactions on Geoscience and Remote Sensing, 2020, 58, 2782-2795.	2.7	30
80	Assimilation of Sentinel 1 and SMAPâ€”based satellite soil moisture retrievals into SWAT hydrological model: the impact of satellite revisit time andâ€”product spatial resolution on flood simulations in small basins. Journal of Hydrology, 2020, 581, 124367.	2.3	51
81	Upscaling of Single-Site-Based Measurements for Validation of Long-Term Coarse-Pixel Albedo Products. IEEE Transactions on Geoscience and Remote Sensing, 2020, 58, 3411-3425.	2.7	7
82	Parameterization of Vegetation Scattering Albedo in the Tau-Omega Model for Soil Moisture Retrieval on Croplands. Remote Sensing, 2020, 12, 2939.	1.8	4
83	Global Monitoring of the Vegetation Dynamics from the Vegetation Optical Depth (VOD): A Review. Remote Sensing, 2020, 12, 2915.	1.8	77
84	Downscaling Satellite Retrieved Soil Moisture Using Regression Treeâ€”Based Machine Learning Algorithms Over Southwest France. Earth and Space Science, 2020, 7, e2020EA001267.	1.1	23
85	Improved ET assimilation through incorporating SMAP soil moisture observations using a coupled process model: A study of U.S. arid and semiarid regions. Journal of Hydrology, 2020, 590, 125402.	2.3	9
86	Synergistic use of SMAP and OCO-2 data in assessing the responses of ecosystem productivity to the 2018 U.S. drought. Remote Sensing of Environment, 2020, 251, 112062.	4.6	34
87	Evaluation of SMAP Core Validation Site Representativeness Errors Using Dense Networks of <i>In Situ</i> Sensors and Random Forests. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2020, 13, 6457-6472.	2.3	6
88	The Utility of Satellites and Autonomous Remote Sensing Platforms for Monitoring Offshore Aquaculture Farms: A Case Study for Canopy Forming Kelps. Frontiers in Marine Science, 2020, 7, .	1.2	20
89	Sentinel-1 soil moisture content and its uncertainty over sparsely vegetated fields. Journal of Hydrology X, 2020, 9, 100066.	0.8	15
90	The Polarimetric Sensitivity of SMAP-Reflectometry Signals to Crop Growth in the U.S. Corn Belt. Remote Sensing, 2020, 12, 1007.	1.8	15

#	ARTICLE	IF	CITATIONS
91	Evaluations of Machine Learning-Based CYGNSS Soil Moisture Estimates against SMAP Observations. <i>Remote Sensing</i> , 2020, 12, 3503.	1.8	41
92	SMAP Detects Soil Moisture Under Temperate Forest Canopies. <i>Geophysical Research Letters</i> , 2020, 47, e2020GL089697.	1.5	34
93	Evaluation and validation of a high spatial resolution satellite soil moisture product over the Continental United States. <i>Journal of Hydrology</i> , 2020, 588, 125043.	2.3	32
94	Monitoring soil moisture at the catchment scale – A novel approach combining antecedent precipitation index and radar-derived rainfall data. <i>Journal of Hydrology</i> , 2020, 589, 125155.	2.3	12
95	Applying transfer function-noise modelling to characterize soil moisture dynamics: a data-driven approach using remote sensing data. <i>Environmental Modelling and Software</i> , 2020, 131, 104756.	1.9	5
96	Satellite-Observed Soil Moisture as an Indicator of Wildfire Risk. <i>Remote Sensing</i> , 2020, 12, 1543.	1.8	29
97	Combining hyper-resolution land surface modeling with SMAP brightness temperatures to obtain 30-m soil moisture estimates. <i>Remote Sensing of Environment</i> , 2020, 242, 111740.	4.6	59
98	Evaluation and analysis of SMAP, AMSR2 and MEaSUREs freeze/thaw products in China. <i>Remote Sensing of Environment</i> , 2020, 242, 111734.	4.6	29
99	Effect of Rainfall Events on SMAP Radiometer-Based Soil Moisture Accuracy Using Core Validation Sites. <i>Journal of Hydrometeorology</i> , 2020, 21, 255-264.	0.7	9
100	A daily 25-km short-latency rainfall product for data-scarce regions based on the integration of the Global Precipitation Measurement mission rainfall and multiple-satellite soil moisture products. <i>Hydrology and Earth System Sciences</i> , 2020, 24, 2687-2710.	1.9	43
102	Improvement of operational airborne gamma radiation snow water equivalent estimates using SMAP soil moisture. <i>Remote Sensing of Environment</i> , 2020, 240, 111668.	4.6	6
103	Downscaling of SMAP Soil Moisture in the Lower Mekong River Basin. <i>Water (Switzerland)</i> , 2020, 12, 56.	1.2	25
104	A Unified Data-Driven Method to Derive Hydrologic Dynamics From Global SMAP Surface Soil Moisture and GPM Precipitation Data. <i>Water Resources Research</i> , 2020, 56, e2019WR024949.	1.7	11
105	Multiscale Surface Roughness for Improved Soil Moisture Estimation. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2020, 58, 5264-5276.	2.7	15
106	Improved SMAP Dual-Channel Algorithm for the Retrieval of Soil Moisture. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2020, 58, 3894-3905.	2.7	62
107	Spatially Explicit Model for Statistical Downscaling of Satellite Passive Microwave Soil Moisture. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2020, 58, 1182-1191.	2.7	20
108	DSCALE_mod16: A Model for Disaggregating Microwave Satellite Soil Moisture with Land Surface Evapotranspiration Products and Gridded Meteorological Data. <i>Remote Sensing</i> , 2020, 12, 980.	1.8	10
109	A roadmap for high-resolution satellite soil moisture applications – confronting product characteristics with user requirements. <i>Remote Sensing of Environment</i> , 2021, 252, 112162.	4.6	138

#	ARTICLE	IF	CITATIONS
110	Evaluating the potential of soil bacterial tetraether proxies in westerlies dominating western Pamirs, Tajikistan and implications for paleoenvironmental reconstructions. <i>Chemical Geology</i> , 2021, 559, 119908.	1.4	12
111	Detecting Shallow Groundwater From Spaceborne Soil Moisture Observations. <i>Water Resources Research</i> , 2021, 57, e2020WR029102.	1.7	13
112	Quantitative Assessment of Satellite L-Band Vegetation Optical Depth in the U.S. Corn Belt. <i>IEEE Geoscience and Remote Sensing Letters</i> , 2022, 19, 1-5.	1.4	4
113	Assessment of Interpolation Errors of CYGNSS Soil Moisture Estimations. <i>IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing</i> , 2021, , 1-1.	2.3	2
114	Mapping High Spatiotemporal-Resolution Soil Moisture by Upscaling Sparse Ground-Based Observations Using a Bayesian Linear Regression Method for Comparison with Microwave Remotely Sensed Soil Moisture Products. <i>Remote Sensing</i> , 2021, 13, 228.	1.8	10
115	Validation of SMAP L2 passive-only soil moisture products using upscaled in situ measurements collected in Twente, the Netherlands. <i>Hydrology and Earth System Sciences</i> , 2021, 25, 473-495.	1.9	10
116	Assessing Disaggregated SMAP Soil Moisture Products in the United States. <i>IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing</i> , 2021, 14, 2577-2592.	2.3	12
117	An improved global remote-sensing-based surface soil moisture (RSSM) dataset covering 2003â€“2018. <i>Earth System Science Data</i> , 2021, 13, 1-31.	3.7	43
118	Downscaling SMAP Soil Moisture Products With Convolutional Neural Network. <i>IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing</i> , 2021, 14, 4051-4062.	2.3	15
119	Evaluation of 18 satellite- and model-based soil moisture products using in situ measurements from 826 sensors. <i>Hydrology and Earth System Sciences</i> , 2021, 25, 17-40.	1.9	156
120	A Semi-Physical Approach for Downscaling Satellite Soil Moisture Data in a Typical Cold Alpine Area, Northwest China. <i>Remote Sensing</i> , 2021, 13, 509.	1.8	3
121	Spatial Gap-Filling of SMAP Soil Moisture Pixels Over Tibetan Plateau via Machine Learning Versus Geostatistics. <i>IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing</i> , 2021, 14, 9899-9912.	2.3	12
122	Groundwater Resources Management Using Remote Sensing and GIS. , 2021, , 369-387.		1
123	Very High Spatial Resolution Downscaled SMAP Radiometer Soil Moisture in the CONUS Using VIIRS/MODIS Data. <i>IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing</i> , 2021, 14, 4946-4965.	2.3	20
124	On the Utility of High-Resolution Soil Moisture Data for Better Constraining Thermal-Based Energy Balance over Three Semi-Arid Agricultural Areas. <i>Remote Sensing</i> , 2021, 13, 727.	1.8	10
125	Emulation of Community Land Model Version 5 (CLM5) to Quantify Sensitivity of Soil Moisture to Uncertain Parameters. <i>Journal of Hydrometeorology</i> , 2021, 22, 259-278.	0.7	9
126	Data Assimilation of Satellite-Based Soil Moisture into a Distributed Hydrological Model for Streamflow Predictions. <i>Hydrology</i> , 2021, 8, 52.	1.3	8
127	Disaggregating satellite soil moisture products based on soil thermal inertia: A comparison of a downscaling model built at two spatial scales. <i>Journal of Hydrology</i> , 2021, 594, 125894.	2.3	19

#	ARTICLE	IF	CITATIONS
128	Comprehensive assessment of Fengyun-3 satellites derived soil moisture with in-situ measurements across the globe. <i>Journal of Hydrology</i> , 2021, 594, 125949.	2.3	11
129	Generating seamless global daily AMSR2 soil moisture (SGD-SM) long-term products for the years 2013â€“2019. <i>Earth System Science Data</i> , 2021, 13, 1385-1401.	3.7	42
130	Drought monitoring using high spatial resolution soil moisture data over Australia in 2015â€“2019. <i>Journal of Hydrology</i> , 2021, 594, 125960.	2.3	43
131	The Value of L-Band Soil Moisture and Vegetation Optical Depth Estimates in the Prediction of Vegetation Phenology. <i>Remote Sensing</i> , 2021, 13, 1343.	1.8	2
132	Can Land Surface Models Capture the Observed Soil Moisture Control of Water and Carbon Fluxes in Temperateâ€“Boreal Forests?. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2021, 126, e2020JG005999.	1.3	7
133	Evaluation of GEOS Precipitation Flagging for SMAP Soil Moisture Retrieval Accuracy. <i>Journal of Hydrometeorology</i> , 2021, , .	0.7	2
134	High-Resolution SMAP Satellite Soil Moisture Product: Exploring the Opportunities. <i>Bulletin of the American Meteorological Society</i> , 2021, 102, 309-315.	1.7	26
135	Soil Moisture Active Passive Improves Global Soil Moisture Simulation in a Land Surface Scheme and Reveals Strong Irrigation Signals Over Farmlands. <i>Geophysical Research Letters</i> , 2021, 48, e2021GL092658.	1.5	6
136	Detecting and mapping irrigated areas in a Mediterranean environment by using remote sensing soil moisture and a land surface model. <i>Journal of Hydrology</i> , 2021, 596, 126129.	2.3	49
137	Soil moisture retrieval over a site of intensive agricultural production using airborne radiometer data. <i>International Journal of Applied Earth Observation and Geoinformation</i> , 2021, 97, 102287.	1.4	3
138	Retrievals of soil moisture and vegetation optical depth using a multi-channel collaborative algorithm. <i>Remote Sensing of Environment</i> , 2021, 257, 112321.	4.6	80
139	SMAP Soil Moisture Product Assessment over Wales, U.K., Using Observations from the WSMN Ground Monitoring Network. <i>Sustainability</i> , 2021, 13, 6019.	1.6	3
140	L-Band Soil Moisture Retrievals Using Microwave Based Temperature and Filtering. Towards Model-Independent Climate Data Records. <i>Remote Sensing</i> , 2021, 13, 2480.	1.8	6
141	CNN-based burned area mapping using radar and optical data. <i>Remote Sensing of Environment</i> , 2021, 260, 112468.	4.6	46
142	Assessment of SMOS and SMAP soil moisture products against new estimates combining physical model, a statistical model, and in-situ observations: A case study over the Huai River Basin, China. <i>Journal of Hydrology</i> , 2021, 598, 126468.	2.3	23
143	The diagnosis about spatio-temporal characteristics and driving factors of flash drought and its prediction over typical humid and semi-arid basins in China. <i>Journal of Hydrometeorology</i> , 2021, , .	0.7	2
144	Satellite soil moisture data assimilation for improved operational continental water balance prediction. <i>Hydrology and Earth System Sciences</i> , 2021, 25, 4567-4584.	1.9	10
145	Landscape Freeze/Thaw Mapping from Active and Passive Microwave Earth Observations over the Tursujuq National Park, Quebec, Canada. <i>Ecoscience</i> , 0, , 1-13.	0.6	3

#	ARTICLE	IF	CITATIONS
146	Evaluation of six satellite- and model-based surface soil temperature datasets using global ground-based observations. <i>Remote Sensing of Environment</i> , 2021, 264, 112605.	4.6	38
147	Modeling of Surface Roughness With an Anisotropic Power-Law Spectrum and Its Applications to Radar Backscattering From Soil Surfaces. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2022, 60, 1-11.	2.7	0
148	Soil moisture experiment in the Luan River supporting new satellite mission opportunities. <i>Remote Sensing of Environment</i> , 2020, 240, 111680.	4.6	120
149	Satellite-based global-scale irrigation water use and its contemporary trends. <i>Science of the Total Environment</i> , 2020, 714, 136719.	3.9	39
150	A Spatially Constrained Multichannel Algorithm for Inversion of a First-Order Microwave Emission Model at L-Band. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2020, 58, 8134-8146.	2.7	9
151	Estimating vegetation water content during the Soil Moisture Active Passive Validation Experiment 2016. <i>Journal of Applied Remote Sensing</i> , 2019, 13, 1.	0.6	19
152	An Intercomparison Study of Algorithms for Downscaling SMAP Radiometer Soil Moisture Retrievals. <i>Journal of Hydrometeorology</i> , 2020, 21, 1761-1775.	0.7	7
153	Assessing the Impact of Soil Layer Depth Specification on the Observability of Modeled Soil Moisture and Brightness Temperature. <i>Journal of Hydrometeorology</i> , 2020, 21, 2041-2060.	0.7	9
154	Above-Ground Biomass Retrieval over Tropical Forests: A Novel GNSS-R Approach with CyGNSS. <i>Remote Sensing</i> , 2020, 12, 1368.	1.8	65
156	Assimilation of vegetation optical depth retrievals from passive microwave radiometry. <i>Hydrology and Earth System Sciences</i> , 2020, 24, 3431-3450.	1.9	30
157	Soil Moisture Retrieval Using SMAP L-Band Radiometer and RISAT-1 C-Band SAR Data in the Paddy Dominated Tropical Region of India. <i>IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing</i> , 2021, 14, 10644-10664.	2.3	6
158	Assessment and Error Analysis of Satellite Soil Moisture Products Over the Third Pole. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2022, 60, 1-18.	2.7	17
159	On the Relationship Between Radar Backscatter and Radiometer Brightness Temperature From SMAP. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2022, 60, 1-16.	2.7	7
160	Evaluation of SMAP/Sentinel 1 High-Resolution Soil Moisture Data to Detect Irrigation Over Agricultural Domain. <i>IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing</i> , 2021, 14, 10733-10747.	2.3	16
161	Neural Network Integration of SMAP and Sentinel-1 for Estimating Soil Moisture at High Spatial Resolution. , 2021, , .		0
162	SMAP Validation Experiment 2019â€“2022 (SMAPVEX19-22): Detection of Soil Moisture Under Temperate Forest Canopy. , 2021, , .		3
163	Assessment of the Temperature Effects in SMAP Satellite Soil Moisture Products in Oklahoma. <i>Remote Sensing</i> , 2021, 13, 4104.	1.8	2
164	SMAP-HydroBlocks, a 30-m satellite-based soil moisture dataset for the conterminous US. <i>Scientific Data</i> , 2021, 8, 264.	2.4	24

#	ARTICLE	IF	CITATIONS
165	The soil moisture data bank: The ground-based, model-based, and satellite-based soil moisture data. Remote Sensing Applications: Society and Environment, 2021, 24, 100649.	0.8	8
166	Machine-Learning Based Retrieval of Soil Moisture at High Spatio-Temporal Scales Using CYGNSS and SMAP Observations. , 2020, , .		2
167	Improving Hourly Precipitation Estimates for Flash Flood Modeling in Data-Scarce Andean-Amazon Basins: An Integrative Framework Based on Machine Learning and Multiple Remotely Sensed Data. Remote Sensing, 2021, 13, 4446.	1.8	6
168	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.	2.3	21
169	Performance analysis of regional AquaCrop (v6.1) biomass and surface soil moisture simulations using satellite and in situ observations. Geoscientific Model Development, 2021, 14, 7309-7328.	1.3	8
170	SMAP Mission Status and Plan. , 2020, , .		0
171	SMAP Validation Experiment 2019â€“2021 (SMAPVEX19-21): Detection of Soil Moisture under Forest Canopy. , 2020, , .		1
172	Investigating the Lagged Relationship between Smap Soil Moisture and Live Fuel Moisture in California, USA. , 2020, , .		0
173	Analyzing Effects of Crops on SMAP Satellite-Based Soil Moisture Using a Rainfallâ€“Runoff Model in the U.S. Corn Belt. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2022, 15, 247-260.	2.3	4
174	Implementation of Two-Stream Emission Model for L-Band Retrievals on the Tibetan Plateau. Remote Sensing, 2022, 14, 494.	1.8	1
175	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.	2.3	62
176	A global 1â€“km downscaled SMAP soil moisture product based on thermal inertia theory. Vadose Zone Journal, 2022, 21, , .	1.3	26
177	Comprehensive analysis and numerical simulation of a large debris flow in the Meilong catchment, China. Engineering Geology, 2022, 298, 106546.	2.9	17
178	Optimizing a backscatter forward operator using Sentinel-1 data over irrigated land. Hydrology and Earth System Sciences, 2021, 25, 6283-6307.	1.9	14
179	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.	2.3	6
180	An Intercomparison Study of Algorithms for SMAP Brightness Temperature Resolution Enhancement With or Without Information From AMSR2. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2022, 15, 2058-2069.	2.3	2
181	Multi-Scale Assessment of SMAP Level 3 and Level 4 Soil Moisture Products over the Soil Moisture Network within the ShanDian River (SMN-SDR) Basin, China. Remote Sensing, 2022, 14, 982.	1.8	10
182	A Comprehensive Evaluation of Gridded L-, C-, and X-Band Microwave Soil Moisture Product over the CZO in the Central Ganga Plains, India. Remote Sensing, 2022, 14, 1629.	1.8	3

#	ARTICLE	IF	CITATIONS
183	Validation of Four Satellite-Derived Soil Moisture Products Using Ground-Based In Situ Observations over Northern China. <i>Remote Sensing</i> , 2022, 14, 1419.	1.8	6
184	Estimation of Global Irrigation Water Use by the Integration of Multiple Satellite Observations. <i>Water Resources Research</i> , 2022, 58, .	1.7	46
185	Evaluating the Variability of Surface Soil Moisture Simulated Within CMIP5 Using SMAP Data. <i>Journal of Geophysical Research D: Atmospheres</i> , 2022, 127, .	1.2	2
186	Measurement of SST and SSS Using Frequencies in the Range 0.3–2.0 GHz. <i>Radio Science</i> , 2022, 57, .	0.8	1
187	Resolution Enhancement of SMAP Passive Soil Moisture Estimates. <i>Remote Sensing</i> , 2022, 14, 1761.	1.8	2
188	A Hybrid Triple Collocation-Deep Learning Approach for Improving Soil Moisture Estimation from Satellite and Model-Based Data. <i>Remote Sensing</i> , 2022, 14, 1744.	1.8	13
189	Using regional characteristics to improve uncalibrated estimation of rootzone soil moisture from optical/thermal remote-sensing. <i>Remote Sensing of Environment</i> , 2022, 273, 112982.	4.6	6
190	Improved soil moisture estimation: Synergistic use of satellite observations and land surface models over CONUS based on machine learning. <i>Journal of Hydrology</i> , 2022, 609, 127749.	2.3	7
191	Disaggregation of SMAP Soil Moisture at 20 m Resolution: Validation and Sub-Field Scale Analysis. <i>Remote Sensing</i> , 2022, 14, 167.	1.8	6
192	Quasi-global machine learning-based soil moisture estimates at high spatio-temporal scales using CYGNSS and SMAP observations. <i>Remote Sensing of Environment</i> , 2022, 276, 113041.	4.6	28
195	Application of the vineyard data assimilation (VIDA) system to vineyard root-zone soil moisture monitoring in the California Central Valley. <i>Irrigation Science</i> , 0, , 1.	1.3	6
196	Analysis of short-term soil moisture effects on the ASCAT backscatter-incidence angle dependence. <i>Science of Remote Sensing</i> , 2022, , 100053.	2.2	2
197	A bibliometric analysis on the visibility of the Sentinel-1 mission in the scientific literature. <i>Arabian Journal of Geosciences</i> , 2022, 15, .	0.6	7
198	A data-driven approach using the remotely sensed soil moisture product to identify water-demand in agricultural regions. <i>Science of the Total Environment</i> , 2022, 837, 155893.	3.9	7
199	Generating high-accuracy and cloud-free surface soil moisture at 1 km resolution by point-surface data fusion over the Southwestern U.S.. <i>Agricultural and Forest Meteorology</i> , 2022, 321, 108985.	1.9	11
200	Estimation of high-resolution precipitation using downscaled satellite soil moisture and SM2RAIN approach. <i>Journal of Hydrology</i> , 2022, 610, 127926.	2.3	2
201	Bias correction of satellite soil moisture through data assimilation. <i>Journal of Hydrology</i> , 2022, 610, 127947.	2.3	6
203	Evaluation of Multiscale SMAP Soil Moisture Products in Forested Environments. <i>IEEE Geoscience and Remote Sensing Letters</i> , 2022, 19, 1-5.	1.4	0

#	ARTICLE	IF	CITATIONS
204	Relative Strengths Recognition of Nine Mainstream Satellite-Based Soil Moisture Products at the Global Scale. <i>Remote Sensing</i> , 2022, 14, 2739.	1.8	4
205	Multi-frequency radiometer-based soil moisture retrieval and algorithm parameterization using in situ sites. <i>Remote Sensing of Environment</i> , 2022, 279, 113113.	4.6	6
206	A Review of GNSS/GPS in Hydrogeodesy: Hydrologic Loading Applications and Their Implications for Water Resource Research. <i>Water Resources Research</i> , 2022, 58, .	1.7	30
207	Assessing the Spatiotemporal Variability of SMAP Soil Moisture Accuracy in a Deciduous Forest Region. <i>Remote Sensing</i> , 2022, 14, 3329.	1.8	8
208	Investigating multiple causes of time-varying SMAP soil moisture biases based on core validation sites data. <i>Journal of Hydrology</i> , 2022, 612, 128151.	2.3	3
209	Reconstruction of a Global 9â€‰km, 8-Day SMAP Surface Soil Moisture Dataset during 2015â€“2020 by Spatiotemporal Fusion. <i>Journal of Remote Sensing</i> , 2022, 2022, .	3.2	7
210	Remote sensing-based vegetation and soil moisture constraints reduce irrigation estimation uncertainty. <i>Environmental Research Letters</i> , 2022, 17, 084010.	2.2	9
211	High-Resolution Soil Moisture Data Reveal Complex Multi-Scale Spatial Variability Across the United States. <i>Geophysical Research Letters</i> , 2022, 49, .	1.5	9
212	Local Scale (3-m) Soil Moisture Mapping Using SMAP and Planet SuperDove. <i>Remote Sensing</i> , 2022, 14, 3812.	1.8	7
213	Soil moisture content retrieval over meadows from Sentinel-1 and Sentinel-2 data using physically based scattering models. <i>Remote Sensing of Environment</i> , 2022, 280, 113191.	4.6	8
214	Trapezoid-based surface soil moisture retrieval using a pixel-to-pixel scheme: A preliminary result over the North China Plain. <i>Journal of Hydrology</i> , 2022, 613, 128350.	2.3	2
215	The first global soil moisture and vegetation optical depth product retrieved from fused SMOS and SMAP L-band observations. <i>Remote Sensing of Environment</i> , 2022, 282, 113272.	4.6	19
216	Deep Learning-Based Soil Moisture Retrieval in CONUS Using CYGNSS Delay-Doppler Maps. <i>IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing</i> , 2022, 15, 6867-6881.	2.3	18
217	Development of SMAP Retrievals for Forested Regions: SMAPVEX19-22 and SMAPVEX22-Boreal. , 2022, , .		3
218	Evaluating satellite-derived soil moisture data for improving the internal consistency of process-based ecohydrological modelling. <i>Journal of Hydrology</i> , 2022, 614, 128462.	2.3	5
219	Global Evaluation of SMAP/Sentinel-1 Soil Moisture Products. <i>Remote Sensing</i> , 2022, 14, 4624.	1.8	5
220	Downscaling SMAP Brightness Temperatures to 3 km Using CYGNSS Reflectivity Observations: Factors That Affect Spatial Heterogeneity. <i>Remote Sensing</i> , 2022, 14, 5262.	1.8	0
221	Integration of Satellite-Derived and Ground-Based Soil Moisture Observations for a Precipitation Product over the Upper Heihe River Basin, China. <i>Remote Sensing</i> , 2022, 14, 5355.	1.8	4

#	ARTICLE	IF	CITATIONS
222	Assimilation of Remotely Sensed Leaf Area Index Enhances the Estimation of Anthropogenic Irrigation Water Use. <i>Journal of Advances in Modeling Earth Systems</i> , 2022, 14, .	1.3	2
223	A Hybrid Physicsâ€“AI Model to Improve Hydrological Forecasts. , 2023, 2, .		0
224	Evaluation of SMAP Soil Moisture Retrieval Accuracy Over a Boreal Forest Region. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2022, 60, 1-11.	2.7	5
225	Passive Microwave Retrieval of Soil Moisture Below Snowpack at L-Band Using SMAP Observations. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2022, 60, 1-16.	2.7	3
226	An assessment of L-band surface soil moisture products from SMOS and SMAP in the tropical areas. <i>Remote Sensing of Environment</i> , 2023, 284, 113344.	4.6	19
227	High-resolution European daily soil moisture derived with machine learning (2003â€“2020). <i>Scientific Data</i> , 2022, 9, .	2.4	3
228	Global soil moisture data fusion by Triple Collocation Analysis from 2011 to 2018. <i>Scientific Data</i> , 2022, 9, .	2.4	3
229	Reconstruct SMAP brightness temperature scanning gaps over Qinghai-Tibet Plateau. <i>International Journal of Applied Earth Observation and Geoinformation</i> , 2022, 115, 103090.	0.9	0
230	Multi-resolution soil moisture retrievals by disaggregating SMAP brightness temperatures with RADARSAT-2 polarimetric decompositions. <i>International Journal of Applied Earth Observation and Geoinformation</i> , 2022, 115, 103114.	0.9	0
231	Classification of Different Irrigation Systems at Field Scale Using Time-Series of Remote Sensing Data. <i>IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing</i> , 2022, 15, 10055-10072.	2.3	7
232	Spatial downscaling of satellite soil moisture products based on apparent thermal inertia: Considering the effect of vegetation condition. <i>Journal of Hydrology</i> , 2023, 616, 128824.	2.3	1
233	Indicators of water use efficiency across diverse agroecosystems and spatiotemporal scales. <i>Science of the Total Environment</i> , 2023, 864, 160992.	3.9	14
234	Assessment of ERA5-Land Volumetric Soil Water Layer Product Using In Situ and SMAP Soil Moisture Observations. <i>IEEE Geoscience and Remote Sensing Letters</i> , 2022, 19, 1-5.	1.4	14
235	2021 February Texas Ice Storm Induced Spring GPP Reduction Compensated by the Higher Precipitation. <i>Earth's Future</i> , 0, , .	2.4	2
236	Real-Time Forecast of SMAP L3 Soil Moisture Using Spatialâ€“Temporal Deep Learning Model with Data Integration. <i>Remote Sensing</i> , 2023, 15, 366.	1.8	0
237	SMAP soil moisture data assimilation impacts on water quality and crop yield predictions in watershed modeling. <i>Journal of Hydrology</i> , 2023, 617, 129122.	2.3	4
238	Exploring the Spatial Autocorrelation in Soil Moisture Networks: Analysis of the Bias from Upscaling the Texas Soil Observation Network (TxSON). <i>Water (Switzerland)</i> , 2023, 15, 87.	1.2	0
239	Toward an Improved Surface Roughness Parameterization Model for Soil Moisture Retrieval in Road Construction. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2023, 61, 1-13.	2.7	0

#	ARTICLE	IF	CITATIONS
240	Spatial Downscaling and Gap-Filling of SMAP Soil Moisture to High Resolution Using MODIS Surface Variables and Machine Learning Approaches over ShanDian River Basin, China. <i>Remote Sensing</i> , 2023, 15, 812.	1.8	8
242	Assessing and comparing the <scp>subseasonal</scp> variations of summer soil moisture of satellite products over eastern China. <i>International Journal of Climatology</i> , 2023, 43, 3925-3946.	1.5	2
243	From field observations to temporally dynamic soil surface roughness retrievals in the U.S. Corn Belt. <i>Remote Sensing of Environment</i> , 2023, 287, 113458.	4.6	2
245	Two-step fusion method for generating 1Åkm seamless multi-layer soil moisture with high accuracy in the Qinghai-Tibet plateau. <i>ISPRS Journal of Photogrammetry and Remote Sensing</i> , 2023, 197, 346-363.	4.9	8
246	Deep learning for daily spatiotemporally continuity of satellite surface soil Moisture over eastern China in summer. <i>Journal of Hydrology</i> , 2023, 619, 129308.	2.3	1
247	Assessment of five SMAP soil moisture products using ISMN ground-based measurements over varied environmental conditions. <i>Journal of Hydrology</i> , 2023, 619, 129325.	2.3	5
248	A Performance Analysis of Soil Dielectric Models over Organic Soils in Alaska for Passive Microwave Remote Sensing of Soil Moisture. <i>Remote Sensing</i> , 2023, 15, 1658.	1.8	1
249	A Long-term Consistent Artificial Intelligence and Remote Sensing-based Soil Moisture Dataset. <i>Scientific Data</i> , 2023, 10, .	2.4	6
250	Remotely Sensed Soil Moisture Assimilation in the Distributed Hydrological Model Based on the Error Subspace Transform Kalman Filter. <i>Remote Sensing</i> , 2023, 15, 1852.	1.8	4
274	Toward impact-based monitoring of drought and its cascading hazards. <i>Nature Reviews Earth & Environment</i> , 2023, 4, 582-595.	12.2	3
294	Open Source Soil Moisture Estimation From Spaceborne GNSS Reflectometry Data Fusion. , 0, , .		0