Toward Global Soil Moisture Monitoring With Sentinel-1: Overcoming Obstacles

Citation Report

#	Article	IF	Citations
1	Defining a Trade-off Between Spatial and Temporal Resolution of a Geosynchronous SAR Mission for Soil Moisture Monitoring. Remote Sensing, 2018, 10, 1950.	1.8	5
2	The value of satellite remote sensing soil moisture data and the DISPATCH algorithm in irrigation fields. Hydrology and Earth System Sciences, 2018, 22, 5889-5900.	1.9	34
3	Recent advances in remote sensing of precipitation and soil moisture products for riverine flood prediction. , 2019, , 247-266.		1
4	Combining Machine Learning and Compact Polarimetry for Estimating Soil Moisture from C-Band SAR Data. Remote Sensing, 2019, 11, 2451.	1.8	25
5	Soil Water Content and Temperature Dynamics under Grassland Degradation: A Multi-Depth Continuous Measurement from the Agricultural Pastoral Ecotone in Northwest China. Sustainability, 2019, 11, 4188.	1.6	15
6	Impacts of Radiometric Uncertainty and Weather-Related Surface Conditions on Soil Moisture Retrievals with Sentinel-1. Remote Sensing, 2019, 11, 2025.	1.8	22
7	A Novel Cosmic-Ray Neutron Sensor for Soil Moisture Estimation over Large Areas. Agriculture (Switzerland), 2019, 9, 202.	1.4	33
8	Downscaling satellite soil moisture using geomorphometry and machine learning. PLoS ONE, 2019, 14, e0219639.	1.1	31
9	State updating of root zone soil moisture estimates of an unsaturated zone metamodel for operational water resources management. Journal of Hydrology X, 2019, 4, 100040.	0.8	11
10	Soil moisture retrieval from Sentinel-1 acquisitions in an arid environment in Tunisia: application of Artificial Neural Networks techniques. International Journal of Remote Sensing, 2019, 40, 9159-9180.	1.3	45
11	Soil Water Content Estimation Using High-Frequency Ground Penetrating Radar. Water (Switzerland), 2019, 11, 1036.	1.2	22
12	Analysis of L-Band SAR Data for Soil Moisture Estimations over Agricultural Areas in the Tropics. Remote Sensing, 2019, 11, 1122.	1.8	43
13	Ground, Proximal, and Satellite Remote Sensing of Soil Moisture. Reviews of Geophysics, 2019, 57, 530-616.	9.0	307
14	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. Journal of Hydrometeorology, 2019, 20, 715-730.	0.7	8
15	Temporal Decorrelation of C-Band Backscatter Coefficient in Mediterranean Burned Areas. Remote Sensing, 2019, 11, 2661.	1.8	8
16	Assessment of the Soil Moisture Estimation at the Korea Peninsula: Case Study for Agriculture and Mountainous Areas. , 2019, , .		0
17	Interpretation of ASCAT Radar Scatterometer Observations Over Land: A Case Study Over Southwestern France. Remote Sensing, 2019, 11, 2842.	1.8	22
18	Deriving Field Scale Soil Moisture from Satellite Observations and Ground Measurements in a Hilly Agricultural Region. Remote Sensing, 2019, 11, 2596.	1.8	31

#	ARTICLE	IF	CITATIONS
19	A Prior Estimation of the Spatial Distribution Parameter of Soil Moisture Storage Capacity Using Satellite-Based Root-Zone Soil Moisture Data. Remote Sensing, 2019, 11, 2580.	1.8	5
20	Data Identification and Process Monitoring for Reproducible Earth Observation Research. , 2019, , .		4
21	A Comparison of Two Soil Moisture Products S2MP and Copernicus-SSM Over Southern France. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2019, 12, 3366-3375.	2.3	30
22	Synthetic Aperture Radar (SAR) Compact Polarimetry for Soil Moisture Retrieval. Remote Sensing, 2019, 11, 2227.	1.8	16
23	Developing food, water and energy nexus workflows. International Journal of Digital Earth, 2020, 13, 299-308.	1.6	21
24	Assimilation of Sentinel 1 and SMAPâ€"Âbased satellite soil moisture retrievals into SWAT hydrological model: the impact of satellite revisit time andÂproduct spatial resolution on flood simulations in small basins. Journal of Hydrology, 2020, 581, 124367.	2.3	51
25	Predicting WNV Circulation in Italy Using Earth Observation Data and Extreme Gradient Boosting Model. Remote Sensing, 2020, 12, 3064.	1.8	11
26	Retrieval of Surface Soil Moisture From Sentinel-1 Time Series for Reclamation of Wetland Sites. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2020, 13, 3569-3578.	2.3	8
27	Runoff response to rainfall events considering initial soil moisture â€" Analysis of 9-year records in a small Alpine catchment (Brixenbach valley, Tyrol, Austria). Journal of Hydrology: Regional Studies, 2020, 30, 100711.	1.0	10
28	Estimation of Soil Moisture Applying Modified Dubois Model to Sentinel-1; A Regional Study from Central India. Remote Sensing, 2020, 12, 2266.	1.8	35
29	Inversion of soil roughness for estimating soil moisture from time-series Sentinel-1 backscatter observations over Yanco sites. Geocarto International, 2022, 37, 1850-1862.	1.7	3
30	Towards Synergies Between Thermal-Disaggregated And Sentinel1Based Soil Moisture Data Sets. , 2020, , .		1
31	Retrieval of High-Resolution Soil Moisture through Combination of Sentinel-1 and Sentinel-2 Data. Remote Sensing, 2020, 12, 2303.	1.8	49
32	Satellite Imagery-Based SERVES Soil Moisture for the Analysis of Soil Moisture Initialization Input Scale Effects on Physics-Based Distributed Watershed Hydrologic Modelling. Remote Sensing, 2020, 12, 2108.	1.8	5
33	Soil Moisture Estimation at 500m using Sentinel-1: application to African sites. , 2020, , .		1
34	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.	4.6	63
35	The Applicability of the Cosmic Ray Neutron Sensor to Simultaneously Monitor Soil Water Content and Biomass in an Acacia mearnsii Forest. Hydrology, 2020, 7, 48.	1.3	15
36	Sentinel-1 soil moisture content and its uncertainty over sparsely vegetated fields. Journal of Hydrology X, 2020, 9, 100066.	0.8	15

#	Article	IF	Citations
37	Retrieving Heterogeneous Surface Soil Moisture at 100 m Across the Globe via Fusion of Remote Sensing and Land Surface Parameters. Frontiers in Water, 2020, 2, .	1.0	11
38	Satellite Determination of Peatland Water Table Temporal Dynamics by Localizing Representative Pixels of A SWIR-Based Moisture Index. Remote Sensing, 2020, 12, 2936.	1.8	16
39	Sentinel-1 Cross Ratio and Vegetation Optical Depth: A Comparison over Europe. Remote Sensing, 2020, 12, 3404.	1.8	35
40	Comparison of interpolation methods for soil moisture prediction on China's Loess Plateau. Vadose Zone Journal, 2020, 19, e20025.	1.3	14
41	Practical Data Products From Cosmic-Ray Neutron Sensing for Hydrological Applications. Frontiers in Water, 2020, 2, .	1.0	18
42	Improvement of the soil-atmosphere interactions and subsequent heavy precipitation modelling by enhanced initialization using remotely sensed 1 km soil moisture information. Remote Sensing of Environment, 2020, 246, 111812.	4.6	8
43	Floods in the Mediterranean area: The role of soil moisture and precipitation. , 2020, , 191-218.		1
44	Employing a Multi-Input Deep Convolutional Neural Network to Derive Soil Clay Content from a Synergy of Multi-Temporal Optical and Radar Imagery Data. Remote Sensing, 2020, 12, 1389.	1.8	37
45	Soil moisture assessment through the SSMMI and GSSIM algorithm based on SPOT, WorldView-2, and Sentinel-2 images in the Daliuta Coal Mining Area, China. Environmental Monitoring and Assessment, 2020, 192, 237.	1.3	5
46	Improved Understanding of the Link Between Catchment‐Scale Vegetation Accessible Storage and Satellite‐Derived Soil Water Index. Water Resources Research, 2020, 56, e2019WR026365.	1.7	18
47	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. Hydrology and Earth System Sciences, 2020, 24, 2687-2710.	1.9	43
48	A Comparison of Three Trapezoid Models Using Optical and Thermal Satellite Imagery for Water Table Depth Monitoring in Estonian Bogs. Remote Sensing, 2020, 12, 1980.	1.8	14
50	Do Satellite Surface Soil Moisture Observations Better Retain Information About Crop‐Yield Variability in Drought Conditions?. Water Resources Research, 2020, 56, e2019WR025855.	1.7	21
51	Establishing an Empirical Model for Surface Soil Moisture Retrieval at the U.S. Climate Reference Network Using Sentinel-1 Backscatter and Ancillary Data. Remote Sensing, 2020, 12, 1242.	1.8	19
52	Estimating 500-m Resolution Soil Moisture Using Sentinel-1 and Optical Data Synergy. Water (Switzerland), 2020, 12, 866.	1.2	31
53	A roadmap for high-resolution satellite soil moisture applications – confronting product characteristics with user requirements. Remote Sensing of Environment, 2021, 252, 112162.	4.6	138
54	A New Reflectivity Index for the Retrieval of Surface Soil Moisture From Radar Data. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2021, 14, 818-826.	2.3	11
55	Sentinel-1 Sensitivity to Soil Moisture at High Incidence Angle and the Impact on Retrieval Over Seasonal Crops. IEEE Transactions on Geoscience and Remote Sensing, 2021, 59, 7308-7321.	2.7	21

#	ARTICLE	IF	CITATIONS
56	Sentinel-1 Backscatter Assimilation Using Support Vector Regression or the Water Cloud Model at European Soil Moisture Sites. IEEE Geoscience and Remote Sensing Letters, 2022, 19, 1-5.	1.4	13
57	Using a Discrete Scattering Model to Constrain Water Cloud Model for Simulating Ground-Based Scatterometer Measurements and Retrieving Soil Moisture. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2021, , 1-1.	2.3	1
58	European Wide Forest Classification Based on Sentinel-1 Data. Remote Sensing, 2021, 13, 337.	1.8	31
59	The Potential of ALOS-2 and Sentinel-1 Radar Data for Soil Moisture Retrieval With High Spatial Resolution Over Agroforestry Areas, China. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-17.	2.7	9
60	Development and Application of Cell-Phone-Based Internet of Things (IoT) Systems for Soil Moisture Monitoring. Agricultural Sciences, 2021, 12, 549-564.	0.2	2
61	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.	2.3	7
62	Very High Spatial Resolution Soil Moisture Observation of Heterogeneous Subarctic Catchment Using Nonlocal Averaging and Multitemporal SAR Data. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-17.	2.7	8
63	Insuring crops from space: the potential of satellite-retrieved soil moisture to reduce farmers' drought risk exposure. European Review of Agricultural Economics, 2021, 48, 266-314.	1.5	33
64	Synergistic use of hyperspectral imagery, Sentinel‐1 and <scp>LiDAR</scp> improves mapping of soil physical and geochemical properties at the farm‐scale. European Journal of Soil Science, 2021, 72, 1690-1717.	1.8	12
65	The Contributions of Gauge-Based Precipitation and SMAP Brightness Temperature Observations to the Skill of the SMAP Level-4 Soil Moisture Product. Journal of Hydrometeorology, 2021, 22, 405-424.	0.7	20
66	The value of ASCAT soil moisture and MODIS snow cover data for calibrating a conceptual hydrologic model. Hydrology and Earth System Sciences, 2021, 25, 1389-1410.	1.9	25
67	A D-vine copula quantile regression approach for soil moisture retrieval from dual polarimetric SAR Sentinel-1 over vegetated terrains. Remote Sensing of Environment, 2021, 255, 112283.	4.6	24
68	Extending the Spatio-Temporal Applicability of DISPATCH Soil Moisture Downscaling Algorithm: A Study Case Using SMAP, MODIS and Sentinel-3 Data. Frontiers in Environmental Science, 2021, 9, .	1.5	21
69	A multi-sourced assessment of the spatiotemporal dynamics of soil moisture in the MARINE flash flood model. Hydrology and Earth System Sciences, 2021, 25, 1425-1446.	1.9	2
70	Assimilation of the SCATSAR-SWI with SURFEX: Impact of Local Observation Errors in Austria. Monthly Weather Review, 2021, 149, 773-791.	0.5	1
71	Cereal Crops Soil Parameters Retrieval Using L-Band ALOS-2 and C-Band Sentinel-1 Sensors. Remote Sensing, 2021, 13, 1393.	1.8	15
72	Detection and Quantification of Irrigation Water Amounts at 500 m Using Sentinel-1 Surface Soil Moisture. Remote Sensing, 2021, 13, 1727.	1.8	27
73	The analysis of using satellite soil moisture observations for flood detection, evaluating over the Thailand's Great Flood of 2011. Natural Hazards, 2021, 108, 2879-2904.	1.6	6

#	ARTICLE	IF	CITATIONS
74	Detecting and mapping irrigated areas in a Mediterranean environment by using remote sensing soil moisture and a land surface model. Journal of Hydrology, 2021, 596, 126129.	2.3	49
75	A Machine Learning-Based Approach for Surface Soil Moisture Estimations with Google Earth Engine. Remote Sensing, 2021, 13, 2099.	1.8	35
76	CNN-based burned area mapping using radar and optical data. Remote Sensing of Environment, 2021, 260, 112468.	4.6	46
77	Irrigation Amounts and Timing Retrieval through Data Assimilation of Surface Soil Moisture into the FAO-56 Approach in the South Mediterranean Region. Remote Sensing, 2021, 13, 2667.	1.8	12
78	Soil moisture retrieval from remote sensing measurements: Current knowledge and directions for the future. Earth-Science Reviews, 2021, 218, 103673.	4.0	77
79	Soil Moisture Estimates in a Grass Field Using Sentinel-1 Radar Data and an Assimilation Approach. Remote Sensing, 2021, 13, 3293.	1.8	7
80	Sentinel-1 soil moisture at 1 km resolution: a validation study. Remote Sensing of Environment, 2021, 263, 112554.	4.6	50
81	Global Sensitivity Analysis of a Water Cloud Model toward Soil Moisture Retrieval over Vegetated Agricultural Fields. Remote Sensing, 2021, 13, 3889.	1.8	7
82	Estimation and evaluation of high-resolution soil moisture from merged model and Earth observation data in the Great Britain. Remote Sensing of Environment, 2021, 264, 112610.	4.6	30
83	A deep learning framework under attention mechanism for wheat yield estimation using remotely sensed indices in the Guanzhong Plain, PR China. International Journal of Applied Earth Observation and Geoinformation, 2021, 102, 102375.	1.4	14
84	Correction efficiency and error characteristics for cosmic-ray soil moisture on mountainous terrain. Journal of Hydrology, 2021, 601, 126657.	2.3	6
85	Deriving exclusion maps from C-band SAR time-series in support of floodwater mapping. Remote Sensing of Environment, 2021, 265, 112668.	4.6	13
86	Robust retrieval of soil moisture at field scale across wide-ranging SAR incidence angles for soybean, wheat, forage, oat and grass. Remote Sensing of Environment, 2021, 266, 112712.	4.6	13
87	Toward a self-calibrated and independent SM2RAIN rainfall product. Journal of Hydrology, 2021, 603, 126837.	2.3	9
88	Use of multiple LIDAR-derived digital terrain indices and machine learning for high-resolution national-scale soil moisture mapping of the Swedish forest landscape. Geoderma, 2021, 404, 115280.	2.3	39
89	Field-Scale Spatial and Temporal Soil Water Variability in Irrigated Croplands. Transactions of the ASABE, 2021, 64, 1277-1294.	1.1	9
90	Active and Passive Microwave Signatures of Diurnal Soil Freeze-Thaw Transitions on the Tibetan Plateau. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-14.	2.7	5
91	Contribution of Polarimetry and Multi-Incidence to Soil Moisture Estimation Over Agricultural Fields Based on Time Series of L-Band SAR Data. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2021, 14, 300-313.	2.3	4

#	Article	IF	Citations
92	Evaluating the suitability of the consumer low-cost Parrot Flower Power soil moisture sensor for scientific environmental applications. Geoscientific Instrumentation, Methods and Data Systems, 2020, 9, 117-139.	0.6	12
93	DATA PROCESSING ARCHITECTURES FOR MONITORING FLOODS USING SENTINEL-1. ISPRS Annals of the Photogrammetry, Remote Sensing and Spatial Information Sciences, 0, V-3-2020, 641-648.	0.0	11
94	A Regional Version of the Aquacrop Model Evaluated with Satellite Retrievals and Backscatter Data. , 2021, , .		0
95	Deriving an Exclusion Map (Ex-Map) from Sentinel-l Time Series for Supporting Floodwater Mapping. , 2021, , .		3
96	The Sco-Flooddam Project: New Observing Strategies for Flood Detection, Alert and Rapid Mapping. , 2021, , .		8
97	Relationship Between Retrievals of Surface Soil Moisture and Roughness Using SAR Data at L-Band. , 2021, , .		0
98	Optimal Spatial Resolution of Sentinel-1 Surface Soil Moisture Evaluated Using Intensive in Situ Observations. , 2021, , .		2
99	SMAP-HydroBlocks, a 30-m satellite-based soil moisture dataset for the conterminous US. Scientific Data, 2021, 8, 264.	2.4	24
100	A Method to Estimate Surface Soil Moisture and Map the Irrigated Cropland Area Using Sentinel-1 and Sentinel-2 Data. Sustainability, 2021, 13, 11355.	1.6	9
101	A Review of Irrigation Information Retrievals from Space and Their Utility for Users. Remote Sensing, 2021, 13, 4112.	1.8	76
104	Precipitation Data Retrieval and Quality Assurance from Different Data Sources for the Namoi Catchment in Australia. Geomatics, 2021, 1, 417-428.	1.0	1
105	The normalised Sentinel-1 Global Backscatter Model, mapping Earthâ€™s land surface with C-band microwaves. Scientific Data, 2021, 8, 277.	2.4	30
106	The International Soil Moisture Network: serving Earth system science for over a decade. Hydrology and Earth System Sciences, 2021, 25, 5749-5804.	1.9	116
107	Multitemporal Polarimetric SAR Change Detection for Crop Monitoring and Crop Type Classification. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2021, 14, 12361-12374.	2.3	14
108	Spatial soil moisture estimation in agro-pastoral transitional zone based on synergistic use of SAR and optical-thermal satellite images. Agricultural and Forest Meteorology, 2022, 312, 108719.	1.9	9
109	A Sentinel-1 Backscatter Datacube for Global Land Monitoring Applications. Remote Sensing, 2021, 13, 4622.	1.8	15
110	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
112	An Improved Change Detection Method for Soil Moisture Retrieval using Sentinel-1 and Smap Data. , 2020, , .		0

#	Article	IF	Citations
113	Soil Moisture Estimation at 500m using Sentinel-1: application to Tunisian sites. , 2020, , .		0
114	The French Land Data and Services Center: Theia. , 2020, , .		0
115	Operational Soil Moisture Mapping at C-Band and Perspectives for L-Band. , 2020, , .		1
116	Spatiotemporal Analysis of Soil Moisture Variation in the Jiangsu Water Supply Area of the South-to-North Water Diversion Using ESA CCI Data. Remote Sensing, 2022, 14, 256.	1.8	3
117	Root Zone Soil Moisture Assessment at the Farm Scale Using Remote Sensing and Water Balance Models. Sustainability, 2022, 14, 1123.	1.6	2
118	Remote sensing of soil moisture. , 2023, , 618-630.		2
119	Double-scale analysis on the detectability of irrigation signals from remote sensing soil moisture over an area with complex topography in central Italy. Advances in Water Resources, 2022, 161, 104130.	1.7	14
120	Soil moisture retrieval over croplands using dual-pol L-band GRD SAR data. Remote Sensing of Environment, 2022, 271, 112900.	4.6	27
121	Evaluation of Sentinel-1, SMAP and SMOS surface soil moisture products for distributed eco-hydrological modelling in Mediterranean forest basins. Journal of Hydrology, 2022, 608, 127569.	2.3	6
122	Spatial–temporal modeling of root zone soil moisture dynamics in a vineyard using machine learning and remote sensing. Irrigation Science, 2022, 40, 761-777.	1.3	15
123	Optimizing a backscatter forward operator using Sentinel-1 data over irrigated land. Hydrology and Earth System Sciences, 2021, 25, 6283-6307.	1.9	14
124	Irrigation Mapping on Two Contrasted Climatic Contexts Using Sentinel-1 and Sentinel-2 Data. Water (Switzerland), 2022, 14, 804.	1.2	12
125	Field-scale soil moisture estimation using sentinel-1 GRD SAR data. Advances in Space Research, 2022, 70, 3845-3858.	1.2	13
126	Monitoring Irrigation Events and Crop Dynamics Using Sentinel-1 and Sentinel-2 Time Series. Remote Sensing, 2022, 14, 1205.	1.8	9
127	Towards near real-time national-scale soil water content monitoring using data fusion as a downscaling alternative. Journal of Hydrology, 2022, 609, 127705.	2.3	14
128	Stochastic bias correction for RADARSAT-2 soil moisture retrieved over vegetated areas. Geocarto International, 2022, 37, 9190-9203.	1.7	2
129	Estimating soil moisture conditions for drought monitoring with random forests and a simple soil moisture accounting scheme. Natural Hazards and Earth System Sciences, 2022, 22, 1325-1334.	1.5	8
130	Quasi-global machine learning-based soil moisture estimates at high spatio-temporal scales using CYGNSS and SMAP observations. Remote Sensing of Environment, 2022, 276, 113041.	4.6	28

#	Article	IF	Citations
133	Estimating High-Resolution Soil Moisture Over Mountainous Regions Using Remotely-Sensed Multispectral and Topographic Data. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2022, 15, 3637-3649.	2.3	2
134	Surface Soil Moisture Retrieval Using Sentinel-1 SAR Data for Crop Planning in Kosi River Basin of North Bihar. Agronomy, 2022, 12, 1045.	1.3	8
135	Analysis of short-term soil moisture effects on the ASCAT backscatter-incidence angle dependence. Science of Remote Sensing, 2022, , 100053.	2.2	2
136	Widespread occurrence of anomalous C-band backscatter signals in arid environments caused by subsurface scattering. Remote Sensing of Environment, 2022, 276, 113025.	4.6	20
137	Following the cosmic-ray-neutron-sensing-based soil moisture under grassland and forest: Exploring the potential of optical and SAR remote sensing. Science of Remote Sensing, 2022, 5, 100056.	2.2	3
138	Retrieval of Sub-Kilometric Relative Surface Soil Moisture With Sentinel-1 Utilizing Different Backscatter Normalization Factors. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-13.	2.7	1
139	A New Methodology for Wheat Attenuation Correction at C-Band VV-Polarized Backscatter Time Series. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-14.	2.7	0
140	Hybrid Methodology Using Sentinel-1/Sentinel-2 for Soil Moisture Estimation. Remote Sensing, 2022, 14, 2434.	1.8	7
141	Soil Moisture and Black Truffle Production Variability in the Iberian Peninsula. Forests, 2022, 13, 819.	0.9	2
143	Performance-Optimized Quantization for SAR and InSAR Applications. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-22.	2.7	6
145	Citizen science supporting agricultural monitoring with hundreds of low-cost sensors in comparison to remote sensing data. European Journal of Remote Sensing, 2022, 55, 388-408.	1.7	3
146	Impact of Incidence Angle Diversity on SMOS and Sentinel-1 Soil Moisture Retrievals at Coarse and Fine Scales. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-18.	2.7	2
147	Soil Loss Estimation Coupling a Modified USLE Model with a Runoff Correction Factor Based on Rainfall and Satellite Soil Moisture Data. Water (Switzerland), 2022, 14, 2081.	1.2	3
148	An advanced change detection method for time-series soil moisture retrieval from Sentinel-1. Remote Sensing of Environment, 2022, 279, 113137.	4.6	20
149	An Efficient Global Scale Sentinel-1 Radar Backscatter and Interferometric Processing System. Remote Sensing, 2022, 14, 3524.	1.8	2
150	High-resolution satellite products improve hydrological modeling in northern Italy. Hydrology and Earth System Sciences, 2022, 26, 3921-3939.	1.9	17
151	Satellite-Based Flood Mapping through Bayesian Inference from a Sentinel-1 SAR Datacube. Remote Sensing, 2022, 14, 3673.	1.8	20
153	Soil hydrology in the Earth system. Nature Reviews Earth & Environment, 2022, 3, 573-587.	12.2	57

#	ARTICLE	IF	CITATIONS
154	The IASI Water Deficit Index to Monitor Vegetation Stress and Early Drying in Summer Heatwaves: An Application to Southern Italy. Land, 2022, 11, 1366.	1.2	4
155	How accurately can we retrieve irrigation timing and water amounts from (satellite) soil moisture?. International Journal of Applied Earth Observation and Geoinformation, 2022, 113, 102979.	0.9	8
156	Soil moisture content retrieval over meadows from Sentinel-1 and Sentinel-2 data using physically based scattering models. Remote Sensing of Environment, 2022, 280, 113191.	4.6	8
157	Utilising Sentinel-1â€™s orbital stability for efficient pre-processing of sigma nought backscatter. ISPRS Journal of Photogrammetry and Remote Sensing, 2022, 192, 130-141.	4.9	4
158	Modeling and simulation of synthetic aperture radar dataset for retrieval of soil surface parameters. , 2022, , 187-202.		0
159	Evaluating High Resolution Soil Moisture Maps in the Framework of the ESA CCI. , 2022, , .		1
160	Analysis of Multi-Frequency SAR Data for Evaluating Their Sensitivity to Soil Moisture Over an Agricultural Area in Argentina. , 2022, , .		2
161	Field-Scale Soil Moisture Estimation Under Corn and Soybean Crops Using Airborne SAR Data. , 2022, , .		0
162	Towards a novel high-spatial-resolution satellite rainfall product from C-band SAR Sentinel-1 over Central South Korea based on a bottom-up approach. International Journal of Remote Sensing, 2022, 43, 4888-4910.	1.3	1
163	Towards Global Retrieval of Field-Scale Surface Soil Moisture Using L-Band Sar Data. , 2022, , .		2
164	Soil Moisture Retrieval Using Sail Squirrel Search Optimization-based Deep Convolutional Neural Network with Sentinel-1 Images. International Journal of Image and Graphics, 0, , .	1.2	0
165	All-Sky Soil Moisture Estimation over Agriculture Areas from the Full Polarimetric SAR GF-3 Data. Sustainability, 2022, 14, 10866.	1.6	2
166	Unsupervised Change Detection around Subways Based on SAR Combined Difference Images. Remote Sensing, 2022, 14, 4419.	1.8	1
167	Challenges and benefits of quantifying irrigation through the assimilation of Sentinel-1 backscatter observations into Noah-MP. Hydrology and Earth System Sciences, 2022, 26, 4685-4706.	1.9	14
168	Sentinel-1 and Sentinel-2 Data to Detect Irrigation Events: Riaza Irrigation District (Spain) Case Study. Water (Switzerland), 2022, 14, 3046.	1.2	6
169	Simulation of Sentinel-1A observations and constraint of water cloud model at the regional scale using a discrete scattering model. Remote Sensing of Environment, 2022, 283, 113308.	4.6	6
170	Architecture for Smart Irrigation System using Internet of Things. International Journal of Research in Science and Technology, 2021, 11, .	0.0	0
171	1-km soil moisture retrieval using multi-temporal dual-channel SAR data from Sentinel-1 A/B satellites in a semi-arid watershed. Remote Sensing of Environment, 2023, 284, 113334.	4.6	8

#	Article	IF	Citations
172	Multi-resolution soil moisture retrievals by disaggregating SMAP brightness temperatures with RADARSAT-2 polarimetric decompositions. International Journal of Applied Earth Observation and Geoinformation, 2022, 115, 103114.	0.9	0
173	Exploring Sentinel-1 backscatter time series over the Atacama Desert (Chile) for seasonal dynamics of surface soil moisture. Remote Sensing of Environment, 2023, 285, 113413.	4.6	4
174	Enhanced Surface Soil Moisture Retrieval at High Spatial Resolution From the Integration of Satellite Observations and Soil Pedotransfer Functions. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-11.	2.7	5
175	Retrieving Soil Moisture in the Permafrost Environment by Sentinel-1/2 Temporal Data on the Qinghaiâ€"Tibet Plateau. Remote Sensing, 2022, 14, 5966.	1.8	2
176	A 3D Space-Time Non-Local Mean Filter (NLMF) for Land Changes Retrieval with Synthetic Aperture Radar Images. Remote Sensing, 2022, 14, 5933.	1.8	2
177	Assessment of Effective Roughness Parameters for Simulating Sentinel-1A Observation and Retrieving Soil Moisture over Sparsely Vegetated Field. Remote Sensing, 2022, 14, 6020.	1.8	2
178	Segment-based fusion of multi-sensor multi-scale satellite soil moisture retrievals. Remote Sensing Letters, 2022, 13, 1260-1270.	0.6	0
179	Dual-Frequency Retrieval of Soil Moisture from L- and S-Band Radar Data for Corn and Soybean. Remote Sensing, 2022, 14, 5875.	1.8	1
180	Evaluation of the soil water content of two managed ecosystems using cosmicâ€ray neutron sensing on China's Loess Plateau. European Journal of Soil Science, 2023, 74, .	1.8	2
181	On the Use of Native Resolution Backscatter Intensity Data for Optimal Soil Moisture Retrieval. IEEE Geoscience and Remote Sensing Letters, 2023, 20, 1-5.	1.4	1
182	Field-scale evaluation of remote sensing soil moisture retrievals using a multi-satellite approach. Journal of Spatial Science, 0, , 1-22.	1.0	0
183	Is It Possible to Quantify Irrigation Waterâ€Use by Assimilating a Highâ€Resolution Satellite Soil Moisture Product?. Water Resources Research, 2023, 59, .	1.7	9
184	Observations of intra-peatland variability using multiple spatially coincident remotely sensed data sources and machine learning. Geoderma, 2023, 430, 116348.	2.3	4
185	Time series soil moisture retrieval from SAR data: Multi-temporal constraints and a global validation. Remote Sensing of Environment, 2023, 287, 113466.	4.6	6
186	Soil moisture monitoring using unmanned aerial system. , 2023, , 179-200.		1
187	CPR Algorithmâ€"A new interpolation methodology and QGIS plugin for Colour Pattern Regression between aerial images and raster maps. SoftwareX, 2023, 22, 101356.	1.2	0
188	Soil moisture estimates at 1â€‰km resolution making a synergistic use of Sentinel data. Hydrology and Earth System Sciences, 2023, 27, 1221-1242.	1.9	3
189	An improved method for estimating soil moisture over cropland using SAR and optical data. Earth Science Informatics, 2023, 16, 1909-1916.	1.6	0

#	ARTICLE	IF	CITATIONS
190	Regional data sets of high-resolution (1 and 6 km) irrigation estimates from space. Earth System Science Data, 2023, 15, 1555-1575.	3.7	10
191	Soil Moisture Inversion in Grassland Ecosystem Using Remote Sensing Considering Different Grazing Intensities and Growing Seasons. Sustainability, 2023, 15, 6515.	1.6	0
192	Using Sentinel-1 and Google Earth Engine cloud computing for detecting historical flood hazards in tropical urban regions: a case of Dar es Salaam. Geomatics, Natural Hazards and Risk, 2023, 14, .	2.0	0
193	Vegetation recovery drivers at short-term after fire are plant community-dependent in mediterranean burned landscapes. Forest Ecology and Management, 2023, 539, 121034.	1.4	6
200	Perspective Chapter: Downscaling of Satellite Soil Moisture Estimates. , 0, , .		0
205	Quantifying Irrigation Volumes Using Sentinel-1 Soil Moisture Data in Central Italy. Lecture Notes in Civil Engineering, 2023, , 221-228.	0.3	0
218	Innovative remote-sensed thermodynamical indices to identify vegetation stress and surface dryness: application to southern Italy over the last decade. , 2023, , .		0
219	Comparison of the IASI water deficit index and other vegetation indices: the case study of the intense 2022 drought over the Po Valley. , 2023, , .		0
220	An Hybrid Approach for Soil Moisture Estimation with Sentinel Data. , 2023, , .		0
221	Sentinel-1 Data Sensitivity For Soil Moisture Estimation And Its Application For In-Season Monitoring Of Small Land Holding Farmer Plots. , 2023, , .		0
233	Earth Observation tools to monitor and protect mountain environment: current challenges and future perspectives. , 2024, , 91-99.		0
235	A simple framework to calibrate a soil water balance model with Sentinel-1 and Sentinel-2 observations over irrigated fields. , 2023, , .		0
237	Open Source Soil Moisture Estimation From Spaceborne GNSS Reflectometry Data Fusion. , 0, , .		0