Luca Brocca

List of Publications by Year
in descending order

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204 papers	13,761 citations	17440 63 h-index	24258 110 g-index
290 all docs	290 docs citations	290 times ranked	9669 citing authors

#	Article	IF	Citations
1	ESA CCI Soil Moisture for improved Earth system understanding: State-of-the art and future directions. Remote Sensing of Environment, 2017, 203, 185-215.	11.0	781
2	Global-scale evaluation of 22 precipitation datasets using gauge observations and hydrological modeling. Hydrology and Earth System Sciences, 2017, 21, 6201-6217.	4.9	541
3	Soil moisture estimation through ASCAT and AMSR-E sensors: An intercomparison and validation study across Europe. Remote Sensing of Environment, 2011, 115, 3390-3408.	11.0	483
4	Twenty-three unsolved problems in hydrology (UPH) â€“ a community perspective. Hydrological Sciences Journal, 2019, 64, 1141-1158.	2.6	474
5	The ASCAT Soil Moisture Product: A Review of its Specifications, Validation Results, and Emerging Applications. Meteorologische Zeitschrift, 2013, 22, 5-33.	1.0	471
6	Evaluation of the ESA CCI soil moisture product using ground-based observations. Remote Sensing of Environment, 2015, 162, 380-395.	11.0	443
7	Spatialâ€temporal variability of soil moisture and its estimation across scales. Water Resources Research, 2010, 46, .	4.2	352
8	Soil moisture spatial variability in experimental areas of central Italy. Journal of Hydrology, 2007, 333, 356-373.	5.4	336
9	Improving runoff prediction through the assimilation of the ASCAT soil moisture product. Hydrology and Earth System Sciences, 2010, 14, 1881-1893.	4.9	320
10	Soil as a natural rain gauge: Estimating global rainfall from satellite soil moisture data. Journal of Geophysical Research D: Atmospheres, 2014, 119, 5128-5141.	3.3	308
11	Toward Global Soil Moisture Monitoring With Sentinel-1: Harnessing Assets and Overcoming Obstacles. IEEE Transactions on Geoscience and Remote Sensing, 2019, 57, 520-539.	6.3	241
12	Soil moisture temporal stability over experimental areas in Central Italy. Geoderma, 2009, 148, 364-374.	5.1	232
13	On the estimation of antecedent wetness conditions in rainfallâ€“runoff modelling. Hydrological Processes, 2008, 22, 629-642.	2.6	227
14	Assimilation of Surface- and Root-Zone ASCAT Soil Moisture Products Into Rainfall–Runoff Modeling. IEEE Transactions on Geoscience and Remote Sensing, 2012, 50, 2542-2555.	6.3	224
15	Soil Moisture for Hydrological Applications: Open Questions and New Opportunities. Water (Switzerland), 2017, 9, 140.	2.7	210
16	ASCAT soil wetness index validation through in situ and modeled soil moisture data in central Italy. Remote Sensing of Environment, 2010, 114, 2745-2755.	11.0	204
17	Catchment scale soil moisture spatialâ€“temporal variability. Journal of Hydrology, 2012, 422-423, 63-75.	5.4	190
18	A new method for rainfall estimation through soil moisture observations. Geophysical Research Letters, 2013, 40, 853-858.	4.0	187

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19	Validation practices for satellite soil moisture retrievals: What are (the) errors?. Remote Sensing of Environment, 2020, 244, 111806.	11.0	164
20	Soil moisture temporal stability at different depths on two alpine hillslopes during wet and dry periods. Journal of Hydrology, 2013, 477, 55-71.	5.4	163
21	Measurements and Observations in the XXI century (MOXXI): innovation and multi-disciplinarity to sense the hydrological cycle. Hydrological Sciences Journal, 2018, 63, 169-196.	2.6	151
22	SM2RAINâ€“ASCAT (2007â€“2018): global daily satellite rainfall data from ASCAT soil moisture observations. Earth System Science Data, 2019, 11, 1583-1601.	9.9	140
23	A roadmap for high-resolution satellite soil moisture applications â€“ confronting product characteristics with user requirements. Remote Sensing of Environment, 2021, 252, 112162.	11.0	138
24	Validation practices for satelliteâ€based Earth observation data across communities. Reviews of Geophysics, 2017, 55, 779-817.	23.0	137
25	Assimilation of Observed Soil Moisture Data in Storm Rainfall-Runoff Modeling. Journal of Hydrologic Engineering - ASCE, 2009, 14, 153-165.	1.9	135
26	Quantification of irrigation water using remote sensing of soil moisture in a semi-arid region. Remote Sensing of Environment, 2019, 231, 111226.	11.0	128
27	Understanding the global hydrological droughts of 2003â€“2016 and their relationships with teleconnections. Science of the Total Environment, 2019, 650, 2587-2604.	8.0	121
28	River Discharge Estimation by Using Altimetry Data and Simplified Flood Routing Modeling. Remote Sensing, 2013, 5, 4145-4162.	4.0	120
29	Altimetry for the future: Building on 25 years of progress. Advances in Space Research, 2021, 68, 319-363.	2.6	119
30	Distributed rainfallâ€runoff modelling for flood frequency estimation and flood forecasting. Hydrological Processes, 2011, 25, 2801-2813.	2.6	118
31	The International Soil Moisture Network: serving Earth system science for over a decade. Hydrology and Earth System Sciences, 2021, 25, 5749-5804.	4.9	116
32	How much water is used for irrigation? A new approach exploiting coarse resolution satellite soil moisture products. International Journal of Applied Earth Observation and Geoinformation, 2018, 73, 752-766.	2.8	107
33	Assessment of rainfall thresholds and soil moisture modeling for operational hydrogeological risk prevention in the Umbria region (central Italy). Landslides, 2012, 9, 229-237.	5.4	104
34	Antecedent wetness conditions based on ERS scatterometer data. Journal of Hydrology, 2009, 364, 73-87.	5.4	102
35	Potential of soil moisture observations in flood modelling: Estimating initial conditions and correcting rainfall. Advances in Water Resources, 2014, 74, 44-53.	3.8	102
36	Influence of land use on soil moisture spatialâ€“temporal variability and monitoring. Journal of Hydrology, 2014, 516, 193-199.	5.4	102

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37	A Review of the Applications of ASCAT Soil Moisture Products. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2017, 10, 2285-2306.	4.9	101
38	SM2RAIN-CCI: a new global long-term rainfall data set derived from ESA CCI soil moisture. Earth System Science Data, 2018, 10, 267-280.	9.9	101
39	An assessment of the performance of global rainfall estimates without ground-based observations. Hydrology and Earth System Sciences, 2017, 21, 4347-4361.	4.9	99
40	Spatiotemporal densification of river water level time series by multimission satellite altimetry. Water Resources Research, 2016, 52, 1140-1159.	4.2	97
41	How far are we from the use of satellite rainfall products in landslide forecasting?. Remote Sensing of Environment, 2018, 210, 65-75.	11.0	92
42	Improving Landslide Forecasting Using ASCAT-Derived Soil Moisture Data: A Case Study of the Torgiovannetto Landslide in Central Italy. Remote Sensing, 2012, 4, 1232-1244.	4.0	91
43	Exploiting Satellite-Based Surface Soil Moisture for Flood Forecasting in the Mediterranean Area: State Update Versus Rainfall Correction. Remote Sensing, 2018, 10, 292.	4.0	91
44	The use of remote sensing-derived water surface data for hydraulic model calibration. Remote Sensing of Environment, 2014, 149, 130-141.	11.0	90
45	Data Assimilation of Satellite Soil Moisture into Rainfall-Runoff Modelling: A Complex Recipe?. Remote Sensing, 2015, 7, 11403-11433.	4.0	89
46	Estimating irrigation water use over the contiguous United States by combining satellite and reanalysis soil moisture data. Hydrology and Earth System Sciences, 2019, 23, 897-923.	4.9	89
47	Toward the estimation of river discharge variations using MODIS data in ungauged basins. Remote Sensing of Environment, 2013, 136, 47-55.	11.0	88
48	Impact of Climate Change on Flood Frequency Using Different Climate Models and Downscaling Approaches. Journal of Hydrologic Engineering - ASCE, 2014, 19, .	1.9	85
49	Estimation of antecedent wetness conditions for flood modelling in northern Morocco. Hydrology and Earth System Sciences, 2012, 16, 4375-4386.	4.9	82
50	Combined analysis of soil moisture measurements from roving and fixed cosmic ray neutron probes for multiscale realâ€time monitoring. Geophysical Research Letters, 2015, 42, 3389-3396.	4.0	81
51	Monitoring multi-decadal satellite earth observation of soil moisture products through land surface reanalyses. Remote Sensing of Environment, 2013, 138, 77-89.	11.0	79
52	Electrical resistivity and TDR methods for soil moisture estimation in central Italy test-sites. Journal of Hydrology, 2012, 454-455, 101-112.	5.4	78
53	Precipitation estimation using <scp>L</scp>â€band and <scp>C</scp>â€band soil moisture retrievals. Water Resources Research, 2016, 52, 7213-7225.	4.2	76
54	A Review of Irrigation Information Retrievals from Space and Their Utility for Users. Remote Sensing, 2021, 13, 4112.	4.0	76

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55	How reliable are satellite precipitation estimates for driving hydrological models: A verification study over the Mediterranean area. Journal of Hydrology, 2018, 563, 950-961.	5.4	74
56	A First Assessment of the SMOS Soil Moisture Product With In Situ and Modeled Data in Italy and Luxembourg. IEEE Transactions on Geoscience and Remote Sensing, 2012, 50, 1612-1622.	6.3	73
57	Rainfall estimation from in situ soil moisture observations at several sites in Europe: an evaluation of the SM2RAIN algorithm. Journal of Hydrology and Hydromechanics, 2015, 63, 201-209.	2.0	73
58	Design soil moisture estimation by comparing continuous and stormâ€based rainfallâ€runoff modeling. Water Resources Research, 2011, 47, .	4.2	72
59	Using globally available soil moisture indicators for flood modelling in Mediterranean catchments. Hydrology and Earth System Sciences, 2014, 18, 839-853.	4.9	72
60	A physically based approach for the estimation of root-zone soil moisture from surface measurements. Hydrology and Earth System Sciences, 2014, 18, 1199-1212.	4.9	71
61	Soil Moisture from Fusion of Scatterometer and SAR: Closing the Scale Gap with Temporal Filtering. Remote Sensing, 2018, 10, 1030.	4.0	71
62	Assessing the impact of climate-change scenarios on landslide occurrence in Umbria Region, Italy. Journal of Hydrology, 2016, 541, 285-295.	5.4	70
63	Assessment of GPM and SM2RAIN-ASCAT rainfall products over complex terrain in southern Italy. Atmospheric Research, 2018, 206, 64-74.	4.1	69
64	Rainfall-runoff modelling by using SM2RAIN-derived and state-of-the-art satellite rainfall products over Italy. International Journal of Applied Earth Observation and Geoinformation, 2016, 48, 163-173.	2.8	62
65	Effects of large gullies on catchment-scale soil moisture spatial behaviors: A case study on the Loess Plateau of China. Geoderma, 2016, 261, 1-10.	5.1	62
66	Discharge estimation and forecasting by MODIS and altimetry data in Niger-Benue River. Remote Sensing of Environment, 2017, 195, 96-106.	11.0	62
67	Rainfall estimation by inverting SMOS soil moisture estimates: A comparison of different methods over Australia. Journal of Geophysical Research D: Atmospheres, 2016, 121, 12,062.	3.3	59
68	Comparative evaluation of different satellite rainfall estimation products and bias correction in the Upper Blue Nile (UBN) basin. Atmospheric Research, 2016, 178-179, 471-483.	4.1	59
69	Integration of Satellite Soil Moisture and Rainfall Observations over the Italian Territory. Journal of Hydrometeorology, 2015, 16, 1341-1355.	1.9	56
70	Absolute versus temporal anomaly and percent of saturation soil moisture spatial variability for six networks worldwide. Water Resources Research, 2014, 50, 5560-5576.	4.2	52
71	Coupling MODIS and Radar Altimetry Data for Discharge Estimation in Poorly Gauged River Basins. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2015, 8, 141-148.	4.9	52
72	Daily precipitation estimation through different microwave sensors: Verification study over Italy. Journal of Hydrology, 2017, 545, 436-450.	5.4	52

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73	Modeling the water budget of the Upper Blue Nile basin using the JGrass-NewAge model system and satellite data. Hydrology and Earth System Sciences, 2017, 21, 3145-3165.	4.9	51
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.	5.4	49
75	Field test of a multi-frequency electromagnetic induction sensor for soil moisture monitoring in southern Italy test sites. Journal of Hydrology, 2015, 529, 316-329.	5.4	48
76	Tree species identity and diversity drive fungal richness and community composition along an elevational gradient in a Mediterranean ecosystem. Mycorrhiza, 2018, 28, 39-47.	2.8	48
77	Exploiting High-Resolution Remote Sensing Soil Moisture to Estimate Irrigation Water Amounts over a Mediterranean Region. Remote Sensing, 2020, 12, 2593.	4.0	48
78	On the potential of MetOp ASCATâ€derived soil wetness indices as a new aperture for hydrological monitoring and prediction: a field evaluation over Luxembourg. Hydrological Processes, 2012, 26, 2346-2359.	2.6	46
79	Spatial-temporal variability of soil moisture: Addressing the monitoring at the catchment scale. Journal of Hydrology, 2019, 570, 436-444.	5.4	46
80	Daily River Discharge Estimates by Merging Satellite Optical Sensors and Radar Altimetry Through Artificial Neural Network. IEEE Transactions on Geoscience and Remote Sensing, 2019, 57, 329-341.	6.3	45
81	Near-Real-Time Flood Forecasting Based on Satellite Precipitation Products. Remote Sensing, 2019, 11, 252.	4.0	45
82	Coupling soil moisture and precipitation observations for predicting hourly runoff at small catchment scale. Journal of Hydrology, 2014, 510, 363-371.	5.4	43
83	A daily 25â€‰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.	4.9	43
84	Improving the representation of soil moisture by using a semiâ€analytical infiltration model. Hydrological Processes, 2014, 28, 2103-2115.	2.6	42
85	Determining the best remotely sensed DEM for flood inundation mapping in data sparse regions. International Journal of Remote Sensing, 2020, 41, 1884-1906.	2.9	42
86	Multiyear monitoring of soil moisture over Iran through satellite and reanalysis soil moisture products. International Journal of Applied Earth Observation and Geoinformation, 2016, 48, 85-95.	2.8	41
87	River flow prediction in data scarce regions: soil moisture integrated satellite rainfall products outperform rain gauge observations in West Africa. Scientific Reports, 2020, 10, 12517.	3.3	41
88	Trends in flow intermittence for European rivers. Hydrological Sciences Journal, 2021, 66, 37-49.	2.6	41
89	Correcting satellite-based precipitation products through SMOS soil moisture data assimilation in two land-surface models of different complexity: API and SURFEX. Remote Sensing of Environment, 2017, 200, 295-310.	11.0	39
90	On the assimilation set-up of ASCAT soil moisture data for improving streamflow catchment simulation. Advances in Water Resources, 2018, 111, 86-104.	3.8	39

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91	A reliable rainfallâ€“runoff model for flood forecasting: review and application to a semi-urbanized watershed at high flood risk in Italy. Hydrology Research, 2017, 48, 726-740.	2.7	37
92	Clarifications on the â€œComparison Between SMOS, VUA, ASCAT, and ECMWF Soil Moisture Products Over Four Watersheds in U.S.â€• IEEE Transactions on Geoscience and Remote Sensing, 2014, 52, 1901-1906.	6.3	35
93	Application of a model-based rainfall-runoff database as efficient tool for flood risk management. Hydrology and Earth System Sciences, 2013, 17, 3159-3169.	4.9	34
94	Hydraulic modelling calibration in small rivers by using coarse resolution synthetic aperture radar imagery. Hydrological Processes, 2013, 27, 1321-1330.	2.6	34
95	The Use of H-SAF Soil Moisture Products for Operational Hydrology: Flood Modelling over Italy. Hydrology, 2015, 2, 2-22.	3.0	33
96	Soil moisture as a potential variable for tracking and quantifying irrigation: A case study with proximal gamma-ray spectroscopy data. Advances in Water Resources, 2020, 136, 103502.	3.8	33
97	Development of a data-driven model for spatial and temporal shallow landslide probability of occurrence at catchment scale. Landslides, 2021, 18, 1209-1229.	5.4	33
98	The Precipitation Inferred from Soil Moisture (PrISM) Near Real-Time Rainfall Product: Evaluation and Comparison. Remote Sensing, 2020, 12, 481.	4.0	32
99	Closing the Water Cycle from Observations across Scales: Where Do We Stand?. Bulletin of the American Meteorological Society, 2021, 102, E1897-E1935.	3.3	31
100	Initial Soil Water Content as Input to Field-Scale Infiltration and Surface Runoff Models. Water Resources Management, 2012, 26, 1793-1807.	3.9	30
101	Exploiting a constellation of satellite soil moisture sensors for accurate rainfall estimation. Advances in Water Resources, 2017, 108, 249-255.	3.8	30
102	Reliability of reanalysis and remotely sensed precipitation products for hydrological simulation over the Sefidrood River Basin, Iran. Hydrological Sciences Journal, 2020, 65, 296-310.	2.6	30
103	Potentials and limitations of Sentinel-3 for river discharge assessment. Advances in Space Research, 2021, 68, 593-606.	2.6	30
104	Which rainfall score is more informative about the performance in river discharge simulation? A comprehensive assessment on 1318 basins over Europe. Hydrology and Earth System Sciences, 2020, 24, 4869-4885.	4.9	30
105	The history of rainfall data time-resolution in a wide variety of geographical areas. Journal of Hydrology, 2020, 590, 125258.	5.4	29
106	A simple machine learning approach to model real-time streamflow using satellite inputs: Demonstration in a data scarce catchment. Journal of Hydrology, 2021, 595, 126046.	5.4	29
107	The multi temporal/multi-model approach to predictive uncertainty assessment in real-time flood forecasting. Journal of Hydrology, 2017, 551, 555-576.	5.4	28
108	On the synergy of SMAP, AMSR2 AND SENTINEL-1 for retrieving soil moisture. International Journal of Applied Earth Observation and Geoinformation, 2018, 65, 114-123.	2.8	28

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109	Use of Satellite Soil Moisture Products for the Operational Mitigation of Landslides Risk in Central Italy. , 2016, , 231-247.		27
110	Downscaling near-surface soil moisture from field to plot scale: A comparative analysis under different environmental conditions. Journal of Hydrology, 2018, 557, 97-108.	5.4	26
111	A Machine Learning Approach for Improving Near-Real-Time Satellite-Based Rainfall Estimates by Integrating Soil Moisture. Remote Sensing, 2019, 11, 2221.	4.0	26
112	Integrating multiple satellite observations into a coherent dataset to monitor the full water cycle â€“ application to the Mediterranean region. Hydrology and Earth System Sciences, 2019, 23, 465-491.	4.9	26
113	Soil moisture variations monitoring by AMSU-based soil wetness indices: A long-term inter-comparison with ground measurements. Remote Sensing of Environment, 2010, 114, 2317-2325.	11.0	25
114	Soil Moisture Estimation in Alpine Catchments through Modeling and Satellite Observations. Vadose Zone Journal, 2013, 12, 1-10.	2.2	25
115	Spatiotemporal drought monitoring using bottom-up precipitation dataset (SM2RAIN-ASCAT) over different regions of Iran. Science of the Total Environment, 2021, 779, 146535.	8.0	25
116	Case Study: Improving Real-Time Stage Forecasting Muskingum Model by Incorporating the Rating Curve Model. Journal of Hydrologic Engineering - ASCE, 2011, 16, 540-557.	1.9	24
117	A simple approach for stochastic generation of spatial rainfall patterns. Journal of Hydrology, 2012, 472-473, 63-76.	5.4	24
118	Assessment of the Drought Hazard in the Tiber River Basin in Central Italy and a Comparison of New and Commonly Used Meteorological Indicators. Journal of Hydrologic Engineering - ASCE, 2015, 20, .	1.9	24
119	Global-Scale Evaluation of 22 Precipitation Datasets Using Gauge Observations and Hydrological Modeling. Advances in Global Change Research, 2020, , 625-653.	1.6	24
120	Catchment-scale variability of absolute versus temporal anomaly soil moisture: Time-invariant part not always plays the leading role. Journal of Hydrology, 2015, 529, 1669-1678.	5.4	23
121	Fuzzy Logic for Rainfall-Runoff Modelling Considering Soil Moisture. Water Resources Management, 2015, 29, 3519-3533.	3.9	23
122	Predicting Rainfall and Runoff Through Satellite Soil Moisture Data and SWAT Modelling for a Poorly Gauged Basin in Iran. Water (Switzerland), 2019, 11, 594.	2.7	23
123	Irrigation estimates from space: Implementation of different approaches to model the evapotranspiration contribution within a soil-moisture-based inversion algorithm. Agricultural Water Management, 2022, 265, 107537.	5.6	22
124	Scaling and Filtering Approaches for the Use of Satellite Soil Moisture Observations. , 2013, , 411-426.		21
125	Do Satellite Surface Soil Moisture Observations Better Retain Information About Cropâ€Yield Variability in Drought Conditions?. Water Resources Research, 2020, 56, e2019WR025855.	4.2	21
126	The 63-year changes in annual streamflow volumes across Europe with a focus on the Mediterranean basin. Hydrology and Earth System Sciences, 2021, 25, 5589-5601.	4.9	20

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127	Developing and testing a long-term soil moisture dataset at the catchment scale. Journal of Hydrology, 2013, 490, 144-151.	5.4	19
128	Climate Change and Decision Support Systems for Water Resource Management. Procedia Engineering, 2014, 70, 1324-1333.	1.2	19
129	Cultivation Area Affects the Presence of Fungal Communities and Secondary Metabolites in Italian Durum Wheat Grains. Toxins, 2020, 12, 97.	3.4	19
130	Evaluation of satellite/reanalysis precipitation products over Iran. International Journal of Remote Sensing, 2021, 42, 3474-3497.	2.9	19
131	Satellite rainfall products outperform ground observations for landslide prediction in India. Hydrology and Earth System Sciences, 2021, 25, 3267-3279.	4.9	19
132	Challenges in flood modeling over data-scarce regions: how to exploit globally available soil moisture products to estimate antecedent soil wetness conditions in Morocco. Natural Hazards and Earth System Sciences, 2020, 20, 2591-2607.	3.6	19
133	Use of satellite and modeled soil moisture data for predicting event soil loss at plot scale. Hydrology and Earth System Sciences, 2015, 19, 3845-3856.	4.9	18
134	Complementing near-real time satellite rainfall products with satellite soil moisture-derived rainfall through a Bayesian Inversion approach. Journal of Hydrology, 2019, 573, 341-351.	5.4	18
135	Practical Data Products From Cosmic-Ray Neutron Sensing for Hydrological Applications. Frontiers in Water, 2020, 2, .	2.3	18
136	Comparison of SMOS, modelled andin situlong-term soil moisture series in the northwest of Spain. Hydrological Sciences Journal, 2016, 61, 2610-2625.	2.6	17
137	Constraining coupled hydrological-hydraulic flood model by past storm events and post-event measurements in data-sparse regions. Journal of Hydrology, 2018, 565, 160-176.	5.4	17
138	An investigation of the effects of spatial heterogeneity of initial soil moisture content on surface runoff simulation at a small watershed scale. Journal of Hydrology, 2016, 539, 589-598.	5.4	16
139	Combining a rainfallâ€“runoff model and a regionalization approach for flood and water resource assessment in the western Po Valley, Italy. Hydrological Sciences Journal, 2020, 65, 348-370.	2.6	16
140	River Flow Monitoring by Sentinel-3 OLCI and MODIS: Comparison and Combination. Remote Sensing, 2020, 12, 3867.	4.0	16
141	Assimilation of Satellite Soil Moisture Products for River Flow Prediction: An Extensive Experiment in Over 700 Catchments Throughout Europe. Water Resources Research, 2021, 57, e2021WR029643.	4.2	16
142	Assessment of bottom-up satellite rainfall products on estimating river discharge and hydrologic signatures in Brazilian catchments. Journal of Hydrology, 2021, 603, 126897.	5.4	16
143	Testing of observation operators designed to estimate profile soil moisture from surface measurements. Hydrological Processes, 2019, 33, 575-584.	2.6	15
144	Modeling the response of soil moisture to climate variability in the Mediterranean region. Hydrology and Earth System Sciences, 2021, 25, 653-669.	4.9	15

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145	Regional-scale evaluation of 14 satellite-based precipitation products in characterising extreme events and delineating rainfall thresholds for flood hazards. Atmospheric Research, 2022, 276, 106259.	4.1	15
146	Effects of Different Spatial Precipitation Input Data on Crop Model Outputs under a Central European Climate. Atmosphere, 2018, 9, 290.	2.3	14
147	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.	3.8	14
148	Integration of microwave data from SMAP and AMSR2 for soil moisture monitoring in Italy. Remote Sensing of Environment, 2018, 212, 21-30.	11.0	13
149	Evaluating three non-gauge-corrected satellite precipitation estimates by a regional gauge interpolated dataset over Iran. Journal of Hydrology: Regional Studies, 2021, 38, 100942.	2.4	12
150	Irrigation Mapping on Two Contrasted Climatic Contexts Using Sentinel-1 and Sentinel-2 Data. Water (Switzerland), 2022, 14, 804.	2.7	12
151	Analysis of soil moisture dynamics beneath olive trees. Hydrological Processes, 2016, 30, 4339-4352.	2.6	11
152	Robust Assessment of an Operational Algorithm for the Retrieval of Soil Moisture From AMSR-E Data in Central Italy. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2016, 9, 2478-2492.	4.9	11
153	Soil Electrical Resistivity for Spatial Sampling Design, Prediction, and Uncertainty Modeling of Soil Moisture. Vadose Zone Journal, 2017, 16, 1-14.	2.2	11
154	Modeling the Effects Induced by the Expected Climatic Trends on Landslide Activity at Large Scale. Procedia Engineering, 2016, 158, 541-545.	1.2	10
155	Remote Sensing of Terrestrial Rainfall From Ku-Band Scatterometers. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2016, 9, 533-539.	4.9	10
156	Estimating the drainage rate from surface soil moisture drydowns: Application of DfD model to in situ soil moisture data. Journal of Hydrology, 2018, 565, 489-501.	5.4	10
157	Accuracy versus variability of climate projections for flood assessment in central Italy. Climatic Change, 2017, 141, 273-286.	3.6	9
158	Near real time de-noising of satellite-based soil moisture retrievals: An intercomparison among three different techniques. Remote Sensing of Environment, 2017, 198, 17-29.	11.0	9
159	Physically based approach for rainfall-induced landslide projections in a changing climate. Proceedings of the Institution of Civil Engineers: Geotechnical Engineering, 2019, 172, 481-495.	1.6	9
160	The Impact of Probability Density Functions Assessment on Model Performance for Slope Stability Analysis. Geosciences (Switzerland), 2021, 11, 322.	2.2	9
161	Toward a self-calibrated and independent SM2RAIN rainfall product. Journal of Hydrology, 2021, 603, 126837.	5.4	9
162	High-resolution (1â€‰km) satellite rainfall estimation from SM2RAIN applied to Sentinel-1: Po River basin as a case study. Hydrology and Earth System Sciences, 2022, 26, 2481-2497.	4.9	9

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163	Performance Evaluation of Long NDVI Timeseries from AVHRR, MODIS and Landsat Sensors over Landslide-Prone Locations in Qinghai-Tibetan Plateau. Remote Sensing, 2021, 13, 3172.	4.0	8
164	A simple assimilation method to ingest satellite soil moisture into a limited-area NWP model. Meteorologische Zeitschrift, 2014, 23, 105-121.	1.0	7
165	River discharge estimation through MODIS data. , 2011, , .		6
166	Assimilation of satellite soil moisture data into rainfall-runoff modelling for several catchments worldwide. , 2013, , .		6
167	Confidence interval of real-time forecast stages provided by the STAFOM-RCM model: the case study of the Tiber River (Italy). Hydrological Processes, 2014, 28, 729-743.	2.6	6
168	Complexityâ€reduction modelling for assessing the macroâ€scale patterns of historical soil moisture in the Euroâ€Mediterranean region. Hydrological Processes, 2014, 28, 3752-3760.	2.6	6
169	Testing the potential of soil moisture observations to estimate rainfall in a soil tank experiment. Journal of Hydrology, 2020, 581, 124368.	5.4	6
170	Preliminary analysis of distributed in situ soil moisture measurements. Advances in Geosciences, 0, 2, 81-86.	12.0	6
171	Estimating rainfall depth from satellite-based soil moisture data: A new algorithm by integrating SM2RAIN and the analytical net water flux models. Journal of Hydrology, 2022, 610, 127868.	5.4	6
172	A multi-sensor (SMOS, AMSR-E and ASCAT) satellite-based soil moisture products inter-comparison. , 2012, , .		5
173	Dam Spillways Adequacy Evaluation through Bivariate Flood Frequency Analysis and Hydrological Continuous Simulation. , 2010, , .		4
174	Calibration of a Distributed Hydrological Model (VIC-3L) Based on Global Water Resources Reanalysis Datasets. Water Resources Management, 2022, 36, 1287-1306.	3.9	4
175	A comprehensive assessment of SM2RAIN-NWF using ASCAT and a combination of ASCAT and SMAP soil moisture products for rainfall estimation. Science of the Total Environment, 2022, 838, 156416.	8.0	4
176	What perspective in remote sensing of soil moisture for hydrological applications by coarse-resolution sensors. Proceedings of SPIE, 2011, , .	0.8	3
177	Operations, Challenges, and Prospects of Satellite-Based Surface Soil Moisture Data Services. , 2013, , 463-488.		3
178	Integration of Optical and Passive Microwave Satellite Data for Flooded Area Detection and Monitoring. , 2015, , 631-635.		3
179	Soil Variability and Biogeochemical Fluxes: Toward a Better Understanding of Soil Processes at the Land Surface. Vadose Zone Journal, 2017, 16, 1-4.	2.2	3
180	A merged SMAP â€“ Sentinel-1 soil moisture product using Artificial Neural Networks: a case study in Central Italy. , 2019, , .		3

#	Article	IF	Citations
181	Soil Moisture and Precipitation: The SM2RAIN Algorithm for Rainfall Retrieval from Satellite Soil Moisture. Advances in Global Change Research, 2020, , 1013-1027.	1.6	3
182	Landwarn: An Operative Early Warning System for Landslides Forecasting Based on Rainfall Thresholds and Soil Moisture. , 2013, , 627-634.		3
183	Monitoring precipitation from space: progress, challenges, and opportunities. , 2022, , 239-255.		3
184	A comparison between satellite- and model-based approaches developed in the ESA Irrigation+project framework to estimate irrigation quantities. , 2021, , .		3
185	Addressing the Uncertainty Assessment for Real-Time Stage Forecasting. , 2011, , .		2
186	Robust assessment of an operational algorithm for the retrieval of soil moisture from AMSR-E data in central Italy. , 2015, , .		2
187	Soil Moisture Retrievals Based on Active and Passive Microwave Data. , 2016, , 351-378.		2
188	A continuous rainfall-runoff model as a tool for the critical hydrological scenario assessment in natural channels. , 2008, , 175-179.		2
189	Uncertainty Assessment for Real-Time Stage Forecasting. , 2010, , .		1
190	Soil moisture variability estimation through AMSU radiometer. European Journal of Remote Sensing, 2012, 45, 89-97.	3.5	1
191	On the Variables to be Considered in Assessing the Impact of Climate Change to Alluvial Aquifers: A Case Study in Central Italy. Procedia Engineering, 2014, 70, 1430-1440.	1.2	1
192	Recent advances in remote sensing of precipitation and soil moisture products for riverine flood prediction. , 2019, , 247-266.		1
193	Comparison between Different Approaches for Stochastic Generation of Spatial-Temporal Rainfall Patterns. , 2011, , .		0
194	34 years of remotely sensed soil moisture: What climate signals do we (not) see?. , 2013, , .		0
195	Peer review report 1 on Modelling hydrological losses for varying rainfall and moisture conditions in South Australian Catchments. Journal of Hydrology: Regional Studies, 2015, 3, 17-18.	2.4	0
196	Soil moisture and rainfall retrieval from AMSR2 data in Italy. , 2016, , .		0
197	Editorial: River basin hydrology and natural hazards: monitoring, prediction and prevention. Hydrology Research, 2017, 48, 613-615.	2.7	0
198	Integrating Satellite Soil Moisture and Rainfall Data on a Data-Driven Model for the Assessment of Shallow Landslides Hazard. Proceedings (mdpi), 2019, 30, .	0.2	0

#	Article	IF	Citations
199	Soil Water Balance and Vegetation Dynamics in a Semi-arid Mediterranean Ecosystem. Proceedings (mdpi), 2019, 30, 76.	0.2	0
200	Soil moisture retrieval at regional scale from AMSR2 data (Conference Presentation). , 2016, , .		0
201	Rainfall Estimation From The Bottom: The Power Of Soil Moisture. , 2018, , .		0
202	Irrigation Quantification From Space Exploiting Satellite Soil Moisture Products. , 2018, , .		0
203	Regional Approaches in Forecasting Rainfall-Induced Landslides. ICL Contribution To Landslide Disaster Risk Reduction, 2021, , 251-256.	0.3	0
204	Irrigation Mapping Using Sentinel-1 and Sentinel-2 Data. , 2022, , .		0