

Alexander Gruber

List of Publications by Year in descending order

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49
papers

5,149
citations

257450

24
h-index

377865

34
g-index

64
all docs

64
docs citations

64
times ranked

5023
citing authors

#	ARTICLE	IF	CITATIONS
1	The International Soil Moisture Network: a data hosting facility for global in situ soil moisture measurements. <i>Hydrology and Earth System Sciences</i> , 2011, 15, 1675-1698.	4.9	864
2	ESA CCI Soil Moisture for improved Earth system understanding: State-of-the art and future directions. <i>Remote Sensing of Environment</i> , 2017, 203, 185-215.	11.0	781
3	Evaluation of the ESA CCI soil moisture product using ground-based observations. <i>Remote Sensing of Environment</i> , 2015, 162, 380-395.	11.0	443
4	Global Automated Quality Control of In Situ Soil Moisture Data from the International Soil Moisture Network. <i>Vadose Zone Journal</i> , 2013, 12, 1-21.	2.2	346
5	Evolution of the ESA CCI Soil Moisture climate data records and their underlying merging methodology. <i>Earth System Science Data</i> , 2019, 11, 717-739.	9.9	331
6	Triple Collocation-Based Merging of Satellite Soil Moisture Retrievals. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2017, 55, 6780-6792.	6.3	243
7	Recent advances in (soil moisture) triple collocation analysis. <i>International Journal of Applied Earth Observation and Geoinformation</i> , 2016, 45, 200-211.	2.8	207
8	Validation practices for satellite soil moisture retrievals: What are (the) errors?. <i>Remote Sensing of Environment</i> , 2020, 244, 111806.	11.0	164
9	State of the Climate in 2015. <i>Bulletin of the American Meteorological Society</i> , 2016, 97, Si-S275.	3.3	142
10	Mapping rice extent and cropping scheme in the Mekong Delta using Sentinel-1A data. <i>Remote Sensing Letters</i> , 2016, 7, 1209-1218.	1.4	140
11	A roadmap for high-resolution satellite soil moisture applications “confronting product characteristics with user requirements. <i>Remote Sensing of Environment</i> , 2021, 252, 112162.	11.0	138
12	Validation practices for satellite-based Earth observation data across communities. <i>Reviews of Geophysics</i> , 2017, 55, 779-817.	23.0	137
13	State of the Climate in 2016. <i>Bulletin of the American Meteorological Society</i> , 2017, 98, Si-S280.	3.3	132
14	The International Soil Moisture Network: serving Earth system science for over a decade. <i>Hydrology and Earth System Sciences</i> , 2021, 25, 5749-5804.	4.9	116
15	Characterizing Coarse-Scale Representativeness of in situ Soil Moisture Measurements from the International Soil Moisture Network. <i>Vadose Zone Journal</i> , 2013, 12, 1-16.	2.2	109
16	How much water is used for irrigation? A new approach exploiting coarse resolution satellite soil moisture products. <i>International Journal of Applied Earth Observation and Geoinformation</i> , 2018, 73, 752-766.	2.8	107
17	SM2RAIN-CCI: a new global long-term rainfall data set derived from ESA CCI soil moisture. <i>Earth System Science Data</i> , 2018, 10, 267-280.	9.9	101
18	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.	4.9	89

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19	Estimating error cross-correlations in soil moisture data sets using extended collocation analysis. Journal of Geophysical Research D: Atmospheres, 2016, 121, 1208-1219.	3.3	80
20	A Review of Irrigation Information Retrievals from Space and Their Utility for Users. Remote Sensing, 2021, 13, 4112.	4.0	76
21	Homogenization of Structural Breaks in the Global ESA CCI Soil Moisture Multisatellite Climate Data Record. IEEE Transactions on Geoscience and Remote Sensing, 2021, 59, 2845-2862.	6.3	41
22	The potential of 2D Kalman filtering for soil moisture data assimilation. Remote Sensing of Environment, 2015, 171, 137-148.	11.0	27
23	A Monte Carlo based adaptive Kalman filtering framework for soil moisture data assimilation. Remote Sensing of Environment, 2019, 228, 105-114.	11.0	26
24	Evaluation of a Global Soil Moisture Product from Finer Spatial Resolution SAR Data and Ground Measurements at Irish Sites. Remote Sensing, 2014, 6, 8190-8219.	4.0	25
25	Triple Collocation Analysis of Soil Moisture From Metop-A ASCAT and SMOS Against JRA-55 and ERA-Interim. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2017, 10, 2274-2284.	4.9	25
26	Assimilation of Spatially Sparse In Situ Soil Moisture Networks into a Continuous Model Domain. Water Resources Research, 2018, 54, 1353-1367.	4.2	23
27	Quality Assessment of the CCI ECV Soil Moisture Product Using ENVISAT ASAR Wide Swath Data over Spain, Ireland and Finland. Remote Sensing, 2015, 7, 15388-15423.	4.0	22
28	Error decomposition of nine passive and active microwave satellite soil moisture data sets over Australia. Remote Sensing of Environment, 2016, 182, 128-140.	11.0	22
29	Evaluation of post-retrieval de-noising of active and passive microwave satellite soil moisture. Remote Sensing of Environment, 2015, 163, 127-139.	11.0	21
30	Episodic memory for autonomous agents. , 2008, , .		19
31	Homogeneity of a global multisatellite soil moisture climate data record. Geophysical Research Letters, 2016, 43, 11,245.	4.0	18
32	Surface Soil Moisture Estimation. , 2013, , 29-48.		15
33	Optimizing a backscatter forward operator using Sentinel-1 data over irrigated land. Hydrology and Earth System Sciences, 2021, 25, 6283-6307.	4.9	14
34	Uncertainty in soil moisture retrievals: An ensemble approach using SMOS L-band microwave data. Remote Sensing of Environment, 2019, 229, 133-147.	11.0	13
35	Performance inter-comparison of soil moisture retrieval models for the MetOp-A ASCAT instrument. , 2014, , .		11
36	Visual Tracing for the Eclipse Java Debugger. , 2012, , .		10

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37	The Impact of Quadratic Nonlinear Relations between Soil Moisture Products on Uncertainty Estimates from Triple Collocation Analysis and Two Quadratic Extensions. Journal of Hydrometeorology, 2016, 17, 1725-1743.	1.9	9
38	Tropical Peatland Hydrology Simulated With a Global Land Surface Model. Journal of Advances in Modeling Earth Systems, 2022, 14, .	3.8	9
39	Action planning model for autonomous mobile robots. , 2007, , .		8
40	Potential of Sentinel-1 for high-resolution soil moisture monitoring. , 2013, , .		6
41	Global Estimation of Soil Moisture Persistence with L and C-Band Microwave Sensors. , 2018, , .		6
42	Identification of soil moisture retrieval errors: Learning from the comparison of SMOS and ASCAT. , 2012, , .		3
43	Open source toolbox and web application for soil moisture validation. , 2014, , .		3
44	Intercomparison of Soil Moisture Retrievals From In Situ, ASAR, and ECV SM Data Sets Over Different European Sites. , 2016, , 209-228.		3
45	A comparison between satellite- and model-based approaches developed in the ESA Irrigation+project framework to estimate irrigation quantities. , 2021, , .		3
46	Remote sensing of soil moisture. , 2023, , 618-630.		2
47	Statistical Merging of Active and Passive Microwave Observations Into Long-Term Soil Moisture Climate Data Records. , 2018, , .		1
48	34 years of remotely sensed soil moisture: What climate signals do we (not) see?. , 2013, , .		0
49	Adaptive Filtering for (Soil Moisture) Data Assimilation. , 2020, , .		0