Susan C Steele-Dunne

List of Publications by Year
in descending order

55 papers	2,632 citations	279798 23 h-index	189892 50 g-index
56 all docs	56 docs citations	56 times ranked	3607 citing authors

#	Article	IF	Citations
1	Extrapolating continuous vegetation water content to understand sub-daily backscatter variations. Hydrology and Earth System Sciences, 2022, 26, 1223-1241.	4.9	4
2	Analysis of short-term soil moisture effects on the ASCAT backscatter-incidence angle dependence. Science of Remote Sensing, 2022, , 100053.	4.8	2
3	Sentinel-1 SAR Backscatter Response to Agricultural Drought in The Netherlands. Remote Sensing, 2022, 14, 2435.	4.0	12
4	The influence of vegetation water dynamics on the ASCAT backscatterâ€"incidence angle relationship in the Amazon. Hydrology and Earth System Sciences, 2022, 26, 2997-3019.	4.9	4
5	Agricultural SandboxNL: A national-scale database of parcel-level processed Sentinel-1 SAR data. Scientific Data, 2022, 9, .	5.3	7
6	Towards constraining soil and vegetation dynamics in land surface models: Modeling ASCAT backscatter incidence-angle dependence with a Deep Neural Network. Remote Sensing of Environment, 2022, 279, 113116.	11.0	7
7	The effect of soilâ€"vegetationâ€"atmosphere interaction on slope stability: a numerical study. Environmental Geotechnics, 2021, 8, 430-441.	2.3	10
8	Towards Including Dynamic Vegetation Parameters in the EUMETSAT H SAF ASCAT Soil Moisture Products. Remote Sensing, 2021, 13, 1463.	4.0	7
9	Towards Monitoring Waterlogging with Remote Sensing for Sustainable Irrigated Agriculture. Remote Sensing, 2021, 13, 2929.	4.0	15
10	Response of Subdaily L-Band Backscatter to Internal and Surface Canopy Water Dynamics. IEEE Transactions on Geoscience and Remote Sensing, 2021, 59, 7322-7337.	6.3	17
11	Detecting forest response to droughts with global observations of vegetation water content. Global Change Biology, 2021, 27, 6005-6024.	9.5	73
12	Improving ASCAT Soil Moisture Retrievals With an Enhanced Spatially Variable Vegetation Parameterization. IEEE Transactions on Geoscience and Remote Sensing, 2021, 59, 8241-8256.	6.3	10
13	Impact of vegetation water content information on soil moisture retrievals in agricultural regions: An analysis based on the SMAPVEX16-MicroWEX dataset. Remote Sensing of Environment, 2021, 265, 112623.	11.0	9
14	A Data-Driven Surrogate Approach for the Temporal Stability Forecasting of Vegetation Covered Dikes. Water (Switzerland), 2021, 13, 107.	2.7	4
15	Predicting Rainfall Induced Slope Stability Using Random Forest Regression and Synthetic Data. ICL Contribution To Landslide Disaster Risk Reduction, 2021, , 223-229.	0.3	3
16	Achieving Breakthroughs in Global Hydrologic Science by Unlocking the Power of Multisensor, Multidisciplinary Earth Observations. AGU Advances, 2021, 2, e2021AV000455.	5.4	10
17	Observing Sucrose Accumulation With Sentinel-1 Backscatter. Frontiers in Remote Sensing, 2021, 2, .	3.5	4
18	Multivariate data assimilation of GRACE, SMOS, SMAP measurements for improved regional soil moisture and groundwater storage estimates. Advances in Water Resources, 2020, 135, 103477.	3.8	47

#	Article	IF	Citations
19	Sentinel-1 Cross Ratio and Vegetation Optical Depth: A Comparison over Europe. Remote Sensing, 2020, 12, 3404.	4.0	35
20	Improved Understanding of the Link Between Catchmentâ€Scale Vegetation Accessible Storage and Satelliteâ€Derived Soil Water Index. Water Resources Research, 2020, 56, e2019WR026365.	4.2	18
21	The impact of evaporation induced cracks and precipitation on temporal slope stability. Computers and Geotechnics, 2020, 122, 103506.	4.7	31
22	Improving Soil Moisture and Surface Turbulent Heat Flux Estimates by Assimilation of SMAP Brightness Temperatures or Soil Moisture Retrievals and GOES Land Surface Temperature Retrievals. Journal of Hydrometeorology, 2020, 21, 183-203.	1.9	12
23	Global GRACE Data Assimilation for Groundwater and Drought Monitoring: Advances and Challenges. Water Resources Research, 2019, 55, 7564-7586.	4.2	229
24	Crop Monitoring Using Sentinel-1 Data: A Case Study from The Netherlands. Remote Sensing, 2019, 11, 1887.	4.0	123
25	Non-invasive water content estimation in a tuff wall by DTS. Construction and Building Materials, 2019, 197, 821-829.	7.2	14
26	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.	1.9	8
27	Macro to micro: microwave remote sensing of plant water content for physiology and ecology. New Phytologist, 2019, 223, 1166-1172.	7.3	119
28	Investigating vegetation water dynamics and drought using Metop ASCAT over the North American Grasslands. Remote Sensing of Environment, 2019, 224, 219-235.	11.0	19
29	Non-invasive estimation of moisture content in tuff bricks by GPR. Construction and Building Materials, 2018, 160, 698-706.	7.2	19
30	Ideas and perspectives: Treeâ€"atmosphere interaction responds to water-related stem variations. Biogeosciences, 2018, 15, 6439-6449.	3.3	9
31	Dielectric Response of Corn Leaves to Water Stress. IEEE Geoscience and Remote Sensing Letters, 2017, 14, 8-12.	3.1	22
32	Radar Remote Sensing of Agricultural Canopies: A Review. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2017, 10, 2249-2273.	4.9	228
33	Water stress detection in the Amazon using radar. Geophysical Research Letters, 2017, 44, 6841-6849.	4.0	25
34	Mapping Surface Heat Fluxes by Assimilating SMAP Soil Moisture and GOES Land Surface Temperature Data. Water Resources Research, 2017, 53, 10858-10877.	4.2	32
35	Spatial variability in microwave radiometric signatures of growing corn and soybean during SMAPVEX16-microwex. , 2017, , .		0
36	The Impacts of Heating Strategy on Soil Moisture Estimation Using Actively Heated Fiber Optics. Sensors, 2017, 17, 2102.	3.8	13

#	Article	IF	Citations
37	Improving estimates of water resources in a semi-arid region by assimilating GRACE data into the PCR-GLOBWB hydrological model. Hydrology and Earth System Sciences, 2017, 21, 2053-2074.	4.9	47
38	The Soil Moisture Active Passive Marena, Oklahoma, In Situ Sensor Testbed (SMAPâ€MOISST): Testbed Design and Evaluation of In Situ Sensors. Vadose Zone Journal, 2016, 15, 1-11.	2.2	55
39	Determining soil moisture and soil properties in vegetated areas by assimilating soil temperatures. Water Resources Research, 2016, 52, 4280-4300.	4.2	32
40	Estimating surface turbulent heat fluxes from land surface temperature and soil moisture observations using the particle batch smoother. Water Resources Research, 2016, 52, 9086-9108.	4.2	26
41	Mapping highâ€resolution soil moisture and properties using distributed temperature sensing data and an adaptive particle batch smoother. Water Resources Research, 2016, 52, 7690-7710.	4.2	16
42	Estimating soil moisture and soil thermal and hydraulic properties by assimilating soil temperatures using a particle batch smoother. Advances in Water Resources, 2016, 91, 104-116.	3.8	22
43	Impact of Bias Correction Methods on Estimation of Soil Moisture When Assimilating Active and Passive Microwave Observations. IEEE Transactions on Geoscience and Remote Sensing, 2016, 54, 262-278.	6.3	9
44	Reduction of Used Memory Ensemble Kalman Filtering (RumEnKF): A data assimilation scheme for memory intensive, high performance computing. Advances in Water Resources, 2015, 86, 273-283.	3.8	9
45	A particle batch smoother for soil moisture estimation using soil temperature observations. Advances in Water Resources, 2015, 83, 111-122.	3.8	47
46	Impact of Diurnal Variation in Vegetation Water Content on Radar Backscatter From Maize During Water Stress. IEEE Transactions on Geoscience and Remote Sensing, 2015, 53, 3855-3869.	6.3	61
47	Determining soil moisture by assimilating soil temperature measurements using the Ensemble Kalman Filter. Advances in Water Resources, 2015, 86, 340-353.	3.8	25
48	Using Diurnal Variation in Backscatter to Detect Vegetation Water Stress. IEEE Transactions on Geoscience and Remote Sensing, 2012, 50, 2618-2629.	6.3	62
49	Diurnal Differences in Global ERS Scatterometer Backscatter Observations of the Land Surface. IEEE Transactions on Geoscience and Remote Sensing, 2012, 50, 2595-2602.	6.3	37
50	Double-Ended Calibration of Fiber-Optic Raman Spectra Distributed Temperature Sensing Data. Sensors, 2012, 12, 5471-5485.	3.8	167
51	Highâ€resolution temperature observations to monitor soil thermal properties as a proxy for soil moisture condition in clayâ€shale landslide. Hydrological Processes, 2012, 26, 2143-2156.	2.6	26
52	Understanding Heat Transfer in the Shallow Subsurface Using Temperature Observations. Vadose Zone Journal, 2010, 9, 1034-1045.	2.2	16
53	Origin and fate of atmospheric moisture over continents. Water Resources Research, 2010, 46, .	4.2	586
54	The impacts of climate change on hydrology in Ireland. Journal of Hydrology, 2008, 356, 28-45.	5.4	185

#	Article	IF	Citations
55	Use of displacement as a proxy for dike safety. Proceedings of the International Association of Hydrological Sciences, 0, 382, 481-485.	1.0	2