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	Origin and fate of atmospheric moisture over continents. Water Resources Research, 2010, 46, .	4.2	586
2	Global GRACE Data Assimilation for Groundwater and Drought Monitoring: Advances and Challenges. Water Resources Research, 2019, 55, 7564-7586.	4.2	229
3	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
4	The impacts of climate change on hydrology in Ireland. Journal of Hydrology, 2008, 356, 28-45.	5.4	185
5	Double-Ended Calibration of Fiber-Optic Raman Spectra Distributed Temperature Sensing Data. Sensors, 2012, 12, 5471-5485.	3.8	167
6	Crop Monitoring Using Sentinel-1 Data: A Case Study from The Netherlands. Remote Sensing, 2019, 11, 1887.	4.0	123
7	Macro to micro: microwave remote sensing of plant water content for physiology and ecology. New Phytologist, 2019, 223, 1166-1172.	7.3	119
8	Detecting forest response to droughts with global observations of vegetation water content. Global Change Biology, 2021, 27, 6005-6024.	9.5	73
9	Using Diurnal Variation in Backscatter to Detect Vegetation Water Stress. IEEE Transactions on Geoscience and Remote Sensing, 2012, 50, 2618-2629.	6.3	62
10	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
11	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
12	A particle batch smoother for soil moisture estimation using soil temperature observations. Advances in Water Resources, 2015, 83, 111-122.	3.8	47
13	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
14	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
15	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
16	Sentinel-1 Cross Ratio and Vegetation Optical Depth: A Comparison over Europe. Remote Sensing, 2020, 12, 3404.	4.0	35
17	Determining soil moisture and soil properties in vegetated areas by assimilating soil temperatures. Water Resources Research, 2016, 52, 4280-4300.	4.2	32
18	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

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19	The impact of evaporation induced cracks and precipitation on temporal slope stability. Computers and Geotechnics, 2020, 122, 103506.	4.7	31
20	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
21	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
22	Determining soil moisture by assimilating soil temperature measurements using the Ensemble Kalman Filter. Advances in Water Resources, 2015, 86, 340-353.	3.8	25
23	Water stress detection in the Amazon using radar. Geophysical Research Letters, 2017, 44, 6841-6849.	4.0	25
24	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
25	Dielectric Response of Corn Leaves to Water Stress. IEEE Geoscience and Remote Sensing Letters, 2017, 14, 8-12.	3.1	22
26	Non-invasive estimation of moisture content in tuff bricks by GPR. Construction and Building Materials, 2018, 160, 698-706.	7.2	19
27	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
28	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
29	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
30	Understanding Heat Transfer in the Shallow Subsurface Using Temperature Observations. Vadose Zone Journal, 2010, 9, 1034-1045.	2.2	16
31	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
32	Towards Monitoring Waterlogging with Remote Sensing for Sustainable Irrigated Agriculture. Remote Sensing, 2021, 13, 2929.	4.0	15
33	Non-invasive water content estimation in a tuff wall by DTS. Construction and Building Materials, 2019, 197, 821-829.	7.2	14
34	The Impacts of Heating Strategy on Soil Moisture Estimation Using Actively Heated Fiber Optics. Sensors, 2017, 17, 2102.	3.8	13
35	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
36	Sentinel-1 SAR Backscatter Response to Agricultural Drought in The Netherlands. Remote Sensing, 2022, 14, 2435.	4.0	12

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37	The effect of soilâ€“vegetationâ€“atmosphere interaction on slope stability: a numerical study. Environmental Geotechnics, 2021, 8, 430-441.	2.3	10
38	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
39	Achieving Breakthroughs in Global Hydrologic Science by Unlocking the Power of Multisensor, Multidisciplinary Earth Observations. AGU Advances, 2021, 2, e2021AV000455.	5.4	10
40	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
41	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
42	Ideas and perspectives: Treeâ€“atmosphere interaction responds to water-related stem variations. Biogeosciences, 2018, 15, 6439-6449.	3.3	9
43	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
44	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
45	Towards Including Dynamic Vegetation Parameters in the EUMETSAT H SAF ASCAT Soil Moisture Products. Remote Sensing, 2021, 13, 1463.	4.0	7
46	Agricultural SandboxNL: A national-scale database of parcel-level processed Sentinel-1 SAR data. Scientific Data, 2022, 9, .	5.3	7
47	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
48	A Data-Driven Surrogate Approach for the Temporal Stability Forecasting of Vegetation Covered Dikes. Water (Switzerland), 2021, 13, 107.	2.7	4
49	Extrapolating continuous vegetation water content to understand sub-daily backscatter variations. Hydrology and Earth System Sciences, 2022, 26, 1223-1241.	4.9	4
50	Observing Sucrose Accumulation With Sentinel-1 Backscatter. Frontiers in Remote Sensing, 2021, 2, .	3.5	4
51	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
52	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
53	Use of displacement as a proxy for dike safety. Proceedings of the International Association of Hydrological Sciences, 0, 382, 481-485.	1.0	2
54	Analysis of short-term soil moisture effects on the ASCAT backscatter-incidence angle dependence. Science of Remote Sensing, 2022, , 100053.	4.8	2

#	Article	IF	Citations
55	Spatial variability in microwave radiometric signatures of growing corn and soybean during SMAPVEX16-microwex. , 2017, , .		0