## Dara Entekhabi

List of Publications by Year in descending order

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194 papers 16,457 citations

59 h-index 124 g-index

197 all docs

197 docs citations

197 times ranked

11652 citing authors

| #  | Article   | IF   | CITATIONS |
|----|---|------|-----------|
| 1  | The Soil Moisture Active Passive (SMAP) Mission. Proceedings of the IEEE, 2010, 98, 704-716.  | 21.3 | 2,546     |
| 2  | Recent Arctic amplification and extreme mid-latitude weather. Nature Geoscience, 2014, 7, 627-637.  | 12.9 | 1,729     |
| 3  | Hydrologic Data Assimilation with the Ensemble Kalman Filter. Monthly Weather Review, 2002, 130, 103-114.   | 1.4  | 785       |
| 4  | Passive microwave remote sensing of soil moisture. Journal of Hydrology, 1996, 184, 101-129.  | 5.4  | 620       |
| 5  | Assessment of the SMAP Passive Soil Moisture Product. IEEE Transactions on Geoscience and Remote Sensing, 2016, 54, 4994-5007.  | 6.3  | 460       |
| 6  | Performance Metrics for Soil Moisture Retrievals and Application Requirements. Journal of Hydrometeorology, 2010, 11, 832-840.  | 1.9  | 391       |
| 7  | Eurasian snow cover variability and northern hemisphere climate predictability. Geophysical Research Letters, 1999, 26, 345-348.  | 4.0  | 323       |
| 8  | The global distribution and dynamics of surface soil moisture. Nature Geoscience, 2017, 10, 100-104.  | 12.9 | 308       |
| 9  | Mutual interaction of soil moisture state and atmospheric processes. Journal of Hydrology, 1996, 184, 3-17.   | 5.4  | 307       |
| 10 | Development and assessment of the SMAP enhanced passive soil moisture product. Remote Sensing of Environment, 2018, 204, 931-941.   | 11.0 | 297       |
| 11 | Catchment hydrologic response with a fully distributed triangulated irregular network model.<br>Water Resources Research, 2004, 40, .   | 4.2  | 268       |
| 12 | Extended triple collocation: Estimating errors and correlation coefficients with respect to an unknown target. Geophysical Research Letters, 2014, 41, 6229-6236.               | 4.0  | 260       |
| 13 | An Algorithm for Merging SMAP Radiometer and Radar Data for High-Resolution Soil-Moisture Retrieval. IEEE Transactions on Geoscience and Remote Sensing, 2011, 49, 1504-1512.   | 6.3  | 244       |
| 14 | Land data assimilation and estimation of soil moisture using measurements from the Southern Great Plains 1997 Field Experiment. Water Resources Research, 2002, 38, 35-1-35-18. | 4.2  | 237       |
| 15 | Analysis of evaporative fraction diurnal behaviour. Agricultural and Forest Meteorology, 2007, 143, 13-29.  | 4.8  | 233       |
| 16 | The role of the Siberian high in northern hemisphere climate variability. Geophysical Research Letters, 2001, 28, 299-302.  | 4.0  | 200       |
| 17 | Regionally strong feedbacks between the atmosphere and terrestrial biosphere. Nature Geoscience, 2017, 10, 410-414.   | 12.9 | 197       |
| 18 | On the spatial organization of soil moisture fields. Geophysical Research Letters, 1995, 22, 2757-2760.   | 4.0  | 193       |

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|----|--|------|-----------|
| 19 | Downscaling of radio brightness measurements for soil moisture estimation: A four-dimensional variational data assimilation approach. Water Resources Research, 2001, 37, 2353-2364.                   | 4.2  | 180       |
| 20 | The SMAP and Copernicus Sentinel 1A/B microwave active-passive high resolution surface soil moisture product. Remote Sensing of Environment, 2019, 233, 111380.  | 11.0 | 175       |
| 21 | Vegetation optical depth and scattering albedo retrieval using time series of dual-polarized L-band radiometer observations. Remote Sensing of Environment, 2016, 172, 178-189.                        | 11.0 | 171       |
| 22 | The quasi-periodic behavior of rainfall variability in Africa and its relationship to the southern oscillation. Archives for Meteorology, Geophysics and Bioclimatology, Series A, 1986, 34, 311-348.  | 0.4  | 169       |
| 23 | Preserving high-resolution surface and rainfall data in operational-scale basin hydrology: a fully-distributed physically-based approach. Journal of Hydrology, 2004, 298, 80-111.                     | 5.4  | 164       |
| 24 | L-band vegetation optical depth and effective scattering albedo estimation from SMAP. Remote Sensing of Environment, 2017, 198, 460-470.   | 11.0 | 160       |
| 25 | Generation of Triangulated Irregular Networks Based on Hydrological Similarity. Journal of Hydrologic Engineering - ASCE, 2004, 9, 288-302.  | 1.9  | 144       |
| 26 | Tests of the SMAP Combined Radar and Radiometer Algorithm Using Airborne Field Campaign Observations and Simulated Data. IEEE Transactions on Geoscience and Remote Sensing, 2014, 52, 2018-2028.      | 6.3  | 144       |
| 27 | Estimation of Surface Turbulent Fluxes through Assimilation of Radiometric Surface Temperature Sequences. Journal of Hydrometeorology, 2004, 5, 145-159.   | 1.9  | 137       |
| 28 | Modeled Northern Hemisphere Winter Climate Response to Realistic Siberian Snow Anomalies. Journal of Climate, 2003, 16, 3917-3931.   | 3.2  | 136       |
| 29 | The Diurnal Behavior of Evaporative Fraction in the Soil–Vegetation–Atmospheric Boundary Layer Continuum. Journal of Hydrometeorology, 2011, 12, 1530-1546.  | 1.9  | 111       |
| 30 | An ensemble-based reanalysis approach to land data assimilation. Water Resources Research, 2005, 41, .   | 4.2  | 109       |
| 31 | A Comparative Study of the SMAP Passive Soil Moisture Product With Existing Satellite-Based Soil Moisture Products. IEEE Transactions on Geoscience and Remote Sensing, 2017, 55, 2959-2971.           | 6.3  | 108       |
| 32 | Assessing the Performance of the Ensemble Kalman Filter for Land Surface Data Assimilation. Monthly Weather Review, 2006, 134, 2128-2142.  | 1.4  | 106       |
| 33 | Mapping of Land-Atmosphere Heat Fluxes and Surface Parameters with Remote Sensing Data.<br>Boundary-Layer Meteorology, 2003, 107, 605-633.   | 2.3  | 104       |
| 34 | Land data assimilation with satellite measurements for the estimation of surface energy balance components and surface control on evaporation. Water Resources Research, 2001, 37, 1713-1722.          | 4.2  | 98        |
| 35 | An initial assessment of SMAP soil moisture retrievals using highâ€resolution model simulations and in situ observations. Geophysical Research Letters, 2016, 43, 9662-9668.                           | 4.0  | 97        |
| 36 | A multiâ€resolution ensemble study of a tropical urban environment and its interactions with the background regional atmosphere. Journal of Geophysical Research D: Atmospheres, 2013, 118, 9804-9818. | 3.3  | 96        |

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|----|--|------|-----------|
| 37 | Variational estimation of soil and vegetation turbulent transfer and heat flux parameters from sequences of multisensor imagery. Water Resources Research, 2004, 40, .   | 4.2  | 95        |
| 38 | Evolution of Atmospheric Response to Early-Season Eurasian Snow Cover Anomalies. Monthly Weather Review, 2001, 129, 2746-2760.   | 1.4  | 94        |
| 39 | Hillslope and Climatic Controls on Hydrologic Fluxes. Water Resources Research, 1995, 31, 1725-1739.   | 4.2  | 91        |
| 40 | Basin hydrologic response relations to distributed physiographic descriptors and climate. Journal of Hydrology, 2001, 247, 169-182.  | 5.4  | 91        |
| 41 | A Wireless Soil Moisture Smart Sensor Web Using Physics-Based Optimal Control: Concept and Initial Demonstrations. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2010, 3, 522-535. | 4.9  | 91        |
| 42 | Estimation of surface heat flux and an index of soil moisture using adjoint-state surface energy balance. Water Resources Research, 1999, 35, 3115-3125.   | 4.2  | 89        |
| 43 | On the effects of triangulated terrain resolution on distributed hydrologic model response.<br>Hydrological Processes, 2005, 19, 2101-2122.  | 2.6  | 88        |
| 44 | Large-Eddy Simulation of Flow and Pollutant Transport in Urban Street Canyons with Ground Heating. Boundary-Layer Meteorology, 2010, 137, 187-204.   | 2.3  | 88        |
| 45 | Global characterization of surface soil moisture drydowns. Geophysical Research Letters, 2017, 44, 3682-3690.  | 4.0  | 87        |
| 46 | Linking Siberian Snow Cover to Precursors of Stratospheric Variability. Journal of Climate, 2014, 27, 5422-5432.   | 3.2  | 85        |
| 47 | Retrievals of soil moisture and vegetation optical depth using a multi-channel collaborative algorithm. Remote Sensing of Environment, 2021, 257, 112321.  | 11.0 | 80        |
| 48 | Flow and Pollutant Transport in Urban Street Canyons of Different Aspect Ratios with Ground Heating: Large-Eddy Simulation. Boundary-Layer Meteorology, 2012, 142, 289-304.  | 2.3  | 77        |
| 49 | Equivalent steady soil moisture profile and the time compression approximation in water balance modeling. Water Resources Research, 1994, 30, 2737-2749.   | 4.2  | 76        |
| 50 | Sensitivity of atmospheric response to modeled snow anomaly characteristics. Journal of Geophysical Research, 2004, 109, n/a-n/a.  | 3.3  | 75        |
| 51 | Moisture pulse-reserve in the soil-plant continuum observed across biomes. Nature Plants, 2018, 4, 1026-1033.  | 9.3  | 75        |
| 52 | Probabilistic analysis of the effects of climate change on groundwater recharge. Water Resources Research, 2010, 46, .   | 4.2  | 73        |
| 53 | Detecting forest response to droughts with global observations of vegetation water content. Global Change Biology, 2021, 27, 6005-6024.  | 9.5  | 73        |
| 54 | Land surface state and flux estimation using the ensemble Kalman smoother during the Southern Great Plains 1997 field experiment. Water Resources Research, 2006, 42, .  | 4.2  | 70        |

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|----|--|------|-----------|
| 55 | Extending the Predictability of Hydrometeorological Flood Events Using Radar Rainfall Nowcasting. Journal of Hydrometeorology, 2006, 7, 660-677.   | 1.9  | 69        |
| 56 | L-band vegetation optical depth seasonal metrics for crop yield assessment. Remote Sensing of Environment, 2018, 212, 249-259.   | 11.0 | 69        |
| 57 | Surface Soil Moisture Retrieval Using the L-Band Synthetic Aperture Radar Onboard the Soil Moisture Active–Passive Satellite and Evaluation at Core Validation Sites. IEEE Transactions on Geoscience and Remote Sensing, 2017, 55, 1897-1914. | 6.3  | 64        |
| 58 | Improved SMAP Dual-Channel Algorithm for the Retrieval of Soil Moisture. IEEE Transactions on Geoscience and Remote Sensing, 2020, 58, 3894-3905.  | 6.3  | 62        |
| 59 | Validation of Soil Moisture Data Products From the NASA SMAP Mission. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2022, 15, 364-392.   | 4.9  | 62        |
| 60 | Evaluating the effects of image filtering in short-term radar rainfall forecasting for hydrological applications. Meteorological Applications, 2006, 13, 289.  | 2.1  | 61        |
| 61 | The SMAP mission combined active-passive soil moisture product at 9†km and 3†km spatial resolutions. Remote Sensing of Environment, 2018, 211, 204-217.  | 11.0 | 59        |
| 62 | Soil Moisture Retrieval Using L-Band Radar Observations. IEEE Transactions on Geoscience and Remote Sensing, 2015, 53, 3492-3506.  | 6.3  | 58        |
| 63 | Global-scale assessment and inter-comparison of recently developed/reprocessed microwave satellite vegetation optical depth products. Remote Sensing of Environment, 2021, 253, 112208.  | 11.0 | 58        |
| 64 | How Many Parameters Can Be Maximally Estimated From a Set of Measurements?. IEEE Geoscience and Remote Sensing Letters, 2015, 12, 1081-1085.   | 3.1  | 54        |
| 65 | Soil and Atmospheric Controls on the Land Surface Energy Balance: A Generalized Framework for<br>Distinguishing Moistureâ€Limited and Energyâ€Limited Evaporation Regimes. Water Resources Research,<br>2018, 54, 1831-1851.                   | 4.2  | 54        |
| 66 | Comprehensive analysis of alternative downscaled soil moisture products. Remote Sensing of Environment, 2020, 239, 111586.   | 11.0 | 52        |
| 67 | Relative impacts of Siberian and North American snow anomalies on the winter Arctic Oscillation.<br>Geophysical Research Letters, 2003, 30, .  | 4.0  | 50        |
| 68 | Large-scale atmospheric patterns associated with mesoscale features leading to extreme precipitation events in Northwestern Italy. Advances in Water Resources, 2005, 28, 601-614.   | 3.8  | 49        |
| 69 | A remote sensing observatory for hydrologic sciences: A genesis for scaling to continental hydrology. Water Resources Research, 2006, 42, .  | 4.2  | 49        |
| 70 | Hydrological Storage Length Scales Represented by Remote Sensing Estimates of Soil Moisture and Precipitation. Water Resources Research, 2018, 54, 1476-1492.  | 4.2  | 48        |
| 71 | A Method for Upscaling In Situ Soil Moisture Measurements to Satellite Footprint Scale Using Random Forests. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2017, 10, 2663-2673.                            | 4.9  | 47        |
| 72 | Microwave Observatory of Subcanopy and Subsurface (MOSS): A Mission Concept for Global Deep Soil Moisture Observations. IEEE Transactions on Geoscience and Remote Sensing, 2007, 45, 2630-2643.   | 6.3  | 46        |

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|----|--|------|-----------|
| 73 | A long term global daily soil moisture dataset derived from AMSR-E and AMSR2 (2002–2019). Scientific Data, 2021, 8, 143.   | 5.3  | 44        |
| 74 | Impact of Hillslope-Scale Organization of Topography, Soil Moisture, Soil Temperature, and Vegetation on Modeling Surface Microwave Radiation Emission. IEEE Transactions on Geoscience and Remote Sensing, 2009, 47, 2557-2571. | 6.3  | 43        |
| 75 | Error Propagation of Radar Rainfall Nowcasting Fields through a Fully Distributed Flood Forecasting Model. Journal of Applied Meteorology and Climatology, 2007, 46, 932-940.  | 1.5  | 42        |
| 76 | Hemispheric-scale climate response to Northern Eurasia land surface characteristics and snow anomalies. Global and Planetary Change, 2007, 56, 359-370.  | 3.5  | 41        |
| 77 | Estimation of Landscape Soil Water Losses from Satellite Observations of Soil Moisture. Journal of Hydrometeorology, 2018, 19, 871-889.  | 1.9  | 41        |
| 78 | Scale-recursive assimilation of precipitation data. Advances in Water Resources, 2001, 24, 941-953.  | 3.8  | 40        |
| 79 | Sensitivity of L-band vegetation optical depth to carbon stocks in tropical forests: a comparison to higher frequencies and optical indices. Remote Sensing of Environment, 2019, 232, 111303.                                   | 11.0 | 40        |
| 80 | Analysis of the Radar Vegetation Index and Potential Improvements. Remote Sensing, 2018, 10, 1776.   | 4.0  | 38        |
| 81 | Terrain and Multiple-Scale Interactions as Factors in Generating Extreme Precipitation Events. Journal of Hydrometeorology, 2004, 5, 390-404.  | 1.9  | 37        |
| 82 | Satelliteâ€Based Assessment of Land Surface Energy Partitioning–Soil Moisture Relationships and Effects of Confounding Variables. Water Resources Research, 2019, 55, 10657-10677.   | 4.2  | 37        |
| 83 | Impact of Multiresolution Active and Passive Microwave Measurements on Soil Moisture Estimation<br>Using the Ensemble Kalman Smoother. IEEE Transactions on Geoscience and Remote Sensing, 2007, 45,<br>1016-1028.               | 6.3  | 36        |
| 84 | Sensitivity of Aquarius Active and Passive Measurements Temporal Covariability to Land Surface Characteristics. IEEE Transactions on Geoscience and Remote Sensing, 2015, 53, 4700-4711.   | 6.3  | 36        |
| 85 | Short-Term and Long-Term Surface Soil Moisture Memory Time Scales Are Spatially Anticorrelated at Global Scales. Journal of Hydrometeorology, 2019, 20, 1165-1182.   | 1.9  | 35        |
| 86 | Satellite and Station Observations Demonstrate Water Availability's Effect on Continentalâ€Scale Evaporative and Photosynthetic Land Surface Dynamics. Water Resources Research, 2019, 55, 540-554.                              | 4.2  | 34        |
| 87 | SMAP Detects Soil Moisture Under Temperate Forest Canopies. Geophysical Research Letters, 2020, 47, e2020GL089697.   | 4.0  | 34        |
| 88 | The NASA Soil Moisture Active Passive (SMAP) mission: Overview., 2010,,.   |      | 33        |
| 89 | The role of model dynamics in ensemble Kalman filter performance for chaotic systems. Tellus, Series<br>A: Dynamic Meteorology and Oceanography, 2022, 63, 958.  | 1.7  | 33        |
| 90 | River basin salinization as a form of aridity. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 17635-17642.  | 7.1  | 33        |

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| 91  | SMAP Soil Moisture Change as an Indicator of Drought Conditions. Remote Sensing, 2018, 10, 788.  | 4.0         | 32        |
| 92  | Hydrological extremes in hyperarid regions: A diagnostic characterization of intense precipitation over the Central Arabian Peninsula. Journal of Geophysical Research D: Atmospheres, 2015, 120, 1637-1650. | 3.3         | 31        |
| 93  | Uncertainty Estimates in the SMAP Combined Active–Passive Downscaled Brightness Temperature. IEEE Transactions on Geoscience and Remote Sensing, 2016, 54, 640-650.  | 6.3         | 31        |
| 94  | Embedding landscape processes into triangulated terrain models. International Journal of Geographical Information Science, 2005, 19, 429-457.  | 4.8         | 29        |
| 95  | Using data assimilation to identify diffuse recharge mechanisms from chemical and physical data in the unsaturated zone. Water Resources Research, 2009, 45, .   | 4.2         | 29        |
| 96  | Characterization of higher-order scattering from vegetation with SMAP measurements. Remote Sensing of Environment, 2018, 219, 324-338.   | 11.0        | 29        |
| 97  | Uncertainty Analysis of Soil Moisture and Vegetation Indices Using Aquarius Scatterometer Observations. IEEE Transactions on Geoscience and Remote Sensing, 2014, 52, 4259-4272.                             | 6.3         | 28        |
| 98  | Assessment of Multi-Scale SMOS and SMAP Soil Moisture Products across the Iberian Peninsula. Remote Sensing, 2020, 12, 570.  | 4.0         | 28        |
| 99  | Measurement Scheduling for Soil Moisture Sensing: From Physical Models to Optimal Control. Proceedings of the IEEE, 2010, 98, 1918-1933.   | 21.3        | 27        |
| 100 | An Analogue Approach to Identify Heavy Precipitation Events: Evaluation and Application to CMIP5 Climate Models in the United States. Journal of Climate, 2014, 27, 5941-5963.                               | 3.2         | 27        |
| 101 | Validation of the SMAP freeze/thaw product using categorical triple collocation. Remote Sensing of Environment, 2018, 205, 329-337.  | 11.0        | 27        |
| 102 | Landâ€Atmosphere Drivers of Landscapeâ€Scale Plant Water Content Loss. Geophysical Research Letters, 2020, 47, e2020GL090331.  | 4.0         | 27        |
| 103 | Orographic Constraints on a Modeled Siberian Snow–Tropospheric–Stratospheric Teleconnection Pathway. Journal of Climate, 2004, 17, 1176-1189.  | 3.2         | 26        |
| 104 | Wavelet correlations to reveal multiscale coupling in geophysical systems. Journal of Geophysical Research D: Atmospheres, 2015, 120, 7555-7572.   | 3.3         | 26        |
| 105 | Mapping recharge from space: roadmap to meeting the grand challenge. Hydrogeology Journal, 2007, 15, 105-116.  | 2.1         | 25        |
| 106 | Vegetation Controls on Dryland Salinity. Geophysical Research Letters, 2018, 45, 11,669.   | 4.0         | 25        |
| 107 | Validation of SMAP Soil Moisture Products Using Ground-Based Observations for the Paddy Dominated Tropical Region of India. IEEE Transactions on Geoscience and Remote Sensing, 2019, 57, 8479-8491.         | <b>6.</b> 3 | 25        |
| 108 | Estimation of active-passive microwave covariation using SMAP and Sentinel-1 data. Remote Sensing of Environment, 2019, 225, 458-468.  | 11.0        | 25        |

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| 109 | Conditioning Stochastic Rainfall Replicates on Remote Sensing Data. IEEE Transactions on Geoscience and Remote Sensing, 2009, 47, 2436-2449.   | 6.3  | 24        |
| 110 | Estimation of relative canopy absorption and scattering at L-, C- and X-bands. Remote Sensing of Environment, 2019, 233, 111384.   | 11.0 | 24        |
| 111 | Hydrologic data assimilation with a hillslopeâ€scaleâ€esolving model and L band radar observations: Synthetic experiments with the ensemble Kalman filter. Water Resources Research, 2012, 48, .   | 4.2  | 23        |
| 112 | An entropyâ€based measure of hydrologic complexity and its applications. Water Resources Research, 2015, 51, 5145-5160.  | 4.2  | 22        |
| 113 | Partitioning Evapotranspiration Over the Continental United States Using Weather Station Data. Geophysical Research Letters, 2018, 45, 9605-9613.  | 4.0  | 22        |
| 114 | Landscape Water Storage and Subsurface Correlation From Satellite Surface Soil Moisture and Precipitation Observations. Water Resources Research, 2019, 55, 9111-9132.                             | 4.2  | 22        |
| 115 | Boundary-Layer Entrainment Estimation Through Assimilation of Radiosonde and Micrometeorological Data into a Mixed-Layer Model. Boundary-Layer Meteorology, 2004, 110, 405-433.                    | 2.3  | 21        |
| 116 | Patterns of plant rehydration and growth following pulses of soil moisture availability. Biogeosciences, 2021, 18, 831-847.  | 3.3  | 21        |
| 117 | Parameter estimation of coupled water and energy balance models based on stationary constraints of surface states. Water Resources Research, 2011, 47, .   | 4.2  | 20        |
| 118 | Effect of Radiative Transfer Uncertainty on L-Band Radiometric Soil Moisture Retrieval. IEEE Transactions on Geoscience and Remote Sensing, 2011, 49, 2686-2698.                                   | 6.3  | 20        |
| 119 | Physics-Based Modeling of Active and Passive Microwave Covariations Over Vegetated Surfaces. IEEE Transactions on Geoscience and Remote Sensing, 2019, 57, 788-802.                                | 6.3  | 20        |
| 120 | Estimation of land surface water and energy balance parameters using conditional sampling of surface states. Water Resources Research, 2014, 50, 1805-1822.  | 4.2  | 19        |
| 121 | Quantifying Precipitation Uncertainty for Land Data Assimilation Applications. Monthly Weather Review, 2015, 143, 3276-3299.   | 1.4  | 19        |
| 122 | Application of a hillslope-scale soil moisture data assimilation system to military trafficability assessment. Journal of Terramechanics, 2014, 51, 53-66.   | 3.1  | 18        |
| 123 | Mean-velocity profile of smooth channel flow explained by a cospectral budget model with wall-blockage. Physics of Fluids, 2016, 28, .   | 4.0  | 18        |
| 124 | Mapping land water and energy balance relations through conditional sampling of remote sensing estimates of atmospheric forcing and surface states. Water Resources Research, 2016, 52, 2737-2752. | 4.2  | 18        |
| 125 | Plant Osmoregulation as an Emergent Waterâ€Saving Adaptation. Water Resources Research, 2018, 54, 2781-2798.   | 4.2  | 18        |
| 126 | Spatiotemporal Disaggregation of Remotely Sensed Precipitation for Ensemble Hydrologic Modeling and Data Assimilation. Journal of Hydrometeorology, 2006, 7, 511-533.                              | 1.9  | 16        |

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| 127 | The Effect of Variable Soil Moisture Profiles on P-Band Backscatter. IEEE Transactions on Geoscience and Remote Sensing, 2014, 52, 6315-6325.   | 6.3  | 16        |
| 128 | Mapped Hydroclimatology of Evapotranspiration and Drainage Runoff Using SMAP Brightness Temperature Observations and Precipitation Information. Water Resources Research, 2019, 55, 3391-3413.                                  | 4.2  | 16        |
| 129 | Impact of soil heterogeneity in a mixed-layer model of the planetary boundary layer. Hydrological Sciences Journal, 1998, 43, 633-658.  | 2.6  | 15        |
| 130 | Reproducibility of soil moisture ensembles when representing soil parameter uncertainty using a Latin Hypercube–based approach with correlation control. Water Resources Research, 2010, 46, .                                  | 4.2  | 15        |
| 131 | An alternate and robust approach to calibration for the estimation of land surface model parameters based on remotely sensed observations. Geophysical Research Letters, 2011, 38, n/a-n/a.                                     | 4.0  | 15        |
| 132 | Can Surface Soil Moisture Information Identify Evapotranspiration Regime Transitions?. Geophysical Research Letters, 2022, 49, .  | 4.0  | 15        |
| 133 | Characterization of vegetation and soil scattering mechanisms across different biomes using P-band SAR polarimetry. Remote Sensing of Environment, 2018, 209, 107-117.  | 11.0 | 13        |
| 134 | Terrestrial Evaporation and Moisture Drainage in a Warmer Climate. Geophysical Research Letters, 2020, 47, e2019GL086498.   | 4.0  | 13        |
| 135 | Regularized Dual-Channel Algorithm for the Retrieval of Soil Moisture and Vegetation Optical Depth From SMAP Measurements. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2022, 15, 102-114. | 4.9  | 13        |
| 136 | Identification of runoff generation spatial distribution using conventional hydrologic gauge time series. Water Resources Research, 2006, 42, .   | 4.2  | 12        |
| 137 | Active–Passive Soil Moisture Retrievals During the SMAP Validation Experiment 2012. IEEE Geoscience and Remote Sensing Letters, 2016, 13, 475-479.  | 3.1  | 12        |
| 138 | Landscapeâ€Scale Plant Water Content and Carbon Flux Behavior Following Moisture Pulses: From Dryland to Mesic Environments. Water Resources Research, 2021, 57, e2020WR027592.   | 4.2  | 11        |
| 139 | Evaluation of Surface Melt on the Greenland Ice Sheet Using SMAP <i>L</i> Band Microwave Radiometry. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2021, 14, 11439-11449.                   | 4.9  | 11        |
| 140 | Error Propagation in Microwave Soil Moisture and Vegetation Optical Depth Retrievals. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2021, 14, 11311-11323.                                  | 4.9  | 11        |
| 141 | Role of large eddies in the breakdown of the Reynolds analogy in an idealized mildly unstable atmospheric surface layer. Quarterly Journal of the Royal Meteorological Society, 2017, 143, 2182-2197.                           | 2.7  | 10        |
| 142 | Soil and Vegetation Scattering Contributions in L-Band and P-Band Polarimetric SAR Observations. IEEE Transactions on Geoscience and Remote Sensing, 2019, 57, 8417-8429.   | 6.3  | 10        |
| 143 | Consistency Between NASS Surveyed Soil Moisture Conditions and SMAP Soil Moisture Observations. Water Resources Research, 2019, 55, 7682-7693.  | 4.2  | 10        |
| 144 | Achieving Breakthroughs in Global Hydrologic Science by Unlocking the Power of Multisensor, Multidisciplinary Earth Observations. AGU Advances, 2021, 2, e2021AV000455.   | 5.4  | 10        |

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| 145 | Forward Simulation of Multi-Frequency Microwave Brightness Temperature over Desert Soils in Kuwait and Comparison with Satellite Observations. Remote Sensing, 2019, 11, 1647.  | 4.0  | 9         |
| 146 | Improving Brightness Temperature Measurements Near Coastal Areas for SMAP. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2019, 12, 4578-4588.   | 4.9  | 9         |
| 147 | Observed Landscape Responsiveness to Climate Forcing. Water Resources Research, 2022, 58, .   | 4.2  | 9         |
| 148 | The Soil Moisture Active and Passive Mission (SMAP): Science and applications. , 2009, , .  |      | 8         |
| 149 | Combined Radar–Radiometer Surface Soil Moisture and Roughness Estimation. IEEE Transactions on Geoscience and Remote Sensing, 2017, 55, 4098-4110.  | 6.3  | 8         |
| 150 | Relationship Between Vegetation Microwave Optical Depth and Cross-Polarized Backscatter From Multiyear Aquarius Observations. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2017, 10, 4493-4503.                              | 4.9  | 8         |
| 151 | Wireless Sensor Network Informed UAV Path Planning for Soil Moisture Mapping. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-13.   | 6.3  | 8         |
| 152 | High-resolution enhanced product based on SMAP active-passive approach using sentinel 1A and 1B SAR data. , 2017, , .   |      | 7         |
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