Barton A Forman

List of Publications by Year
in descending order

43 papers	1,089 citations	516215 16 h-index	414034 32 g-index
49 all docs	49 docs citations	49 times ranked	1867 citing authors

#	Article	IF	Citations
1	Assessment and Enhancement of MERRA Land Surface Hydrology Estimates. Journal of Climate, 2011, 24, 6322-6338.	1.2	409
2	Vegetation controls on soil moisture distribution in the Valles Caldera, New Mexico, during the North American monsoon. Ecohydrology, 2008, 1, 225-238.	1.1	66
3	Connecting Satellite Observations with Water Cycle Variables Through Land Data Assimilation: Examples Using the NASA GEOS-5 LDAS. Surveys in Geophysics, 2014, 35, 577-606.	2.1	54
4	Evaluating the Uncertainty of Terrestrial Water Budget Components Over High Mountain Asia. Frontiers in Earth Science, 2019, 7, .	0.8	47
5	High-resolution satellite-based cloud-coupled estimates of total downwelling surface radiation for hydrologic modelling applications. Hydrology and Earth System Sciences, 2009, 13, 969-986.	1.9	38
6	Implications of water constraints on electricity capacity expansion in the United States. Nature Sustainability, 2019, 2, 206-213.	11.5	33
7	Using a Support Vector Machine and a Land Surface Model to Estimate Large-Scale Passive Microwave Brightness Temperatures Over Snow-Covered Land in North America. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2015, 8, 4431-4441.	2.3	32
8	Assimilation of MODIS Snow Cover Fraction Observations into the NASA Catchment Land Surface Model. Remote Sensing, 2018, 10, 316.	1.8	32
9	Estimating Snow Mass in North America Through Assimilation of Advanced Microwave Scanning Radiometer Brightness Temperature Observations Using the Catchment Land Surface Model and Support Vector Machines. Water Resources Research, 2018, 54, 6488-6509.	1.7	30
10	Snow Ensemble Uncertainty Project (SEUP): quantification of snow water equivalent uncertainty across North America via ensemble land surface modeling. Cryosphere, 2021, 15, 771-791.	1.5	30
11	Exploring the Utility of Machine Learning-Based Passive Microwave Brightness Temperature Data Assimilation over Terrestrial Snow in High Mountain Asia. Remote Sensing, 2019, 11, 2265.	1.8	29
12	Estimating Passive Microwave Brightness Temperature Over Snow-Covered Land in North America Using a Land Surface Model and an Artificial Neural Network. IEEE Transactions on Geoscience and Remote Sensing, 2014, 52, 235-248.	2.7	27
13	Comparison of passive microwave brightness temperature prediction sensitivities over snow-covered land in North America using machine learning algorithms and the Advanced Microwave Scanning Radiometer. Remote Sensing of Environment, 2015, 170, 153-165.	4.6	25
14	Permafrost variability over the Northern Hemisphere based on the MERRA-2 reanalysis. Cryosphere, 2019, 13, 2087-2110.	1.5	21
15	Quantifying the potential for reservoirs to secure future surface water yields in the worldâ€™s largest river basins. Environmental Research Letters, 2018, 13, 044026.	2.2	20
16	The spatial scale of model errors and assimilated retrievals in a terrestrial water storage assimilation system. Water Resources Research, 2013, 49, 7457-7468.	1.7	19
17	Atmospheric and Forest Decoupling of Passive Microwave Brightness Temperature Observations Over Snow-Covered Terrain in North America. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2017, 10, 3172-3189.	2.3	15
18	Machine learning predictions of passive microwave brightness temperature over snow-covered land using the special sensor microwave imager (SSM/I). Physical Geography, 2017, 38, 176-196.	0.6	14

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19	Probabilistic Stormwater Runoff and Water Quality Modeling of a Highway in Suburban Maryland. Journal of Hydrologic Engineering - ASCE, 2018, 23, 05017034.	0.8	14
20	Evaluation of ensembleâ€based distributed hydrologic model response with disaggregated precipitation products. Water Resources Research, 2008, 44, .	1.7	13
21	Analyzing Machine Learning Predictions of Passive Microwave Brightness Temperature Spectral Difference Over Snow-Covered Terrain in High Mountain Asia. Frontiers in Earth Science, 2019, 7, .	0.8	13
22	Alternative Source of Climate Data for Mechanisticâ€"Empirical Pavement Performance Prediction. Transportation Research Record, 2015, 2524, 83-91.	1.0	11
23	Achieving Breakthroughs in Global Hydrologic Science by Unlocking the Power of Multisensor, Multidisciplinary Earth Observations. AGU Advances, 2021, 2, e2021AV000455.	2.3	10
24	Evaluation and Enhancement of Permafrost Modeling With the <scp>NASA</scp> Catchment Land Surface Model. Journal of Advances in Modeling Earth Systems, 2017, 9, 2771-2795.	1.3	8
25	Evaluation of four different climate sources on pavement mechanistic-empirical design and impact of surface shortwave radiation. International Journal of Pavement Engineering, 2021, 22, 1155-1168.	2.2	8
26	River Regulation Alleviates the Impacts of Climate Change on U.S. Thermoelectricity Production. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2019JD031618.	1.2	8
27	Connecting Satellite Observations with Water Cycle Variables Through Land Data Assimilation: Examples Using the NASA GEOS-5 LDAS. Space Sciences Series of ISSI, 2013, , 577-606.	0.0	7
28	Integration of satellite-based passive microwave brightness temperature observations and an ensemble-based land data assimilation framework to improve snow estimation in forested regions. , 2017, , .		7
29	Performance of Different Climate Data Sources in Mechanistic-Empirical Pavement Distress Analyses. Journal of Transportation Engineering Part B: Pavements, 2018, 144, .	0.8	7
30	Comparison of Vertical Surface Deformation Estimates Derived From Spaceâ€Based Gravimetry, Groundâ€Based GPS, and Modelâ€Based Hydrologic Loading Over Snowâ€Dominated Watersheds in the United States. Journal of Geophysical Research: Solid Earth, 2020, 125, e2020JB019432.	1.4	6
31	Evaluation of shortwave and longwave radiation models for mechanistic-empirical pavement analysis. International Journal of Pavement Engineering, 2022, 23, 3398-3408.	2.2	6
32	Quantifying the observational requirements of a space-borne LiDAR snow mission. Journal of Hydrology, 2021, 601, 126709.	2.3	6
33	Soil moisture estimation in South Asia via assimilation of SMAP retrievals. Hydrology and Earth System Sciences, 2022, 26, 2221-2243.	1.9	6
34	Assimilation of Groundâ€Based GPS Observations of Vertical Displacement into a Land Surface Model to Improve Terrestrial Water Storage Estimates. Water Resources Research, 2021, 57, e2020WR028763.	1.7	5
35	Exploration of Synthetic Terrestrial Snow Mass Estimation via Assimilation of AMSRâ€E Brightness Temperature Spectral Differences Using the Catchment Land Surface Model and Support Vector Machine Regression. Water Resources Research, 2021, 57, e2020WR027490.	1.7	5
36	Prediction of Active Microwave Backscatter Over Snow-Covered Terrain Across Western Colorado Using a Land Surface Model and Support Vector Machine Regression. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2021, 14, 2403-2417.	2.3	4

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37	Estimating Terrestrial Snow Mass via Multiâ€Sensor Assimilation of Synthetic AMSRâ€E Brightness Temperature Spectral Differences and Synthetic GRACE Terrestrial Water Storage Retrievals. Water Resources Research, 2021, 57, e2021WR029880.	1.7	2
38	Estimation of Snow Mass Information via Assimilation of C-Band Synthetic Aperture Radar Backscatter Observations Into an Advanced Land Surface Model. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2022, 15, 862-875.	2.3	1
39	Impact of Covariance Localization on Ensemble Estimation of Surface Downwelling Longwave and Shortwave Radiation Fluxes. Journal of Hydrometeorology, 2012, 13, 1301-1316.	0.7	0
40	Evaluation of GEOS-Simulated L-Band Microwave Brightness Temperature Using Aquarius Observations over Non-Frozen Land across North America. Remote Sensing, 2020, 12, 3098.	1.8	0
41	Passive Microwave Brightness Temperature Assimilation to Improve Snow Mass Estimation Across Complex Terrain in Pakistan, Afghanistan, and Tajikistan. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2021, 14, 8849-8863.	2.3	0
42	Diagnostic Analysis of a Data Assimilation Framework for Improving Snow Mass Estimation in Complex Terrain. , 2020, , .		0
43	Exploring the Spatiotemporal Coverage of Terrestrial Snow Mass Using a Suite of Satellite Constellation Configurations. Remote Sensing, 2022, 14, 633.	1.8	0