Barton A Forman

List of Publications by Citations

42 papers	831 citations	14 h-index	28 g-index
49 ext. papers	977 ext. citations	5 avg, IF	4.31 L-index

#	Paper	IF	Citations
42	Assessment and Enhancement of MERRA Land Surface Hydrology Estimates. *Journal of Climate*, **2011**, 24, 6322-6338	4.4	365
41	Vegetation controls on soil moisture distribution in the Valles Caldera, New Mexico, during the North American monsoon. *Ecohydrology*, **2008**, 1, 225-238	2.5	57
40	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	7.6	49
39	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	5.5	31
38	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	4.7	25
37	Implications of water constraints on electricity capacity expansion in the United States. *Nature Sustainability*, **2019**, 2, 206-213	22.1	24
36	Assimilation of MODIS Snow Cover Fraction Observations into the NASA Catchment Land Surface Model. *Remote Sensing*, **2018**, 10, 316	5	24
35	. *IEEE Transactions on Geoscience and Remote Sensing*, **2014**, 52, 235-248	8.1	24
34	Evaluating the uncertainty of terrestrial water budget components over High Mountain Asia. *Frontiers in Earth Science*, **2019**, 7,	3.5	22
33	Estimating snow mass in North America through assimilation of AMSR-E brightness temperature observations using the Catchment land surface model and support vector machines. *Water Resources Research*, **2018**, 54, 6488-6509	5.4	22
32	The spatial scale of model errors and assimilated retrievals in a terrestrial water storage assimilation system. *Water Resources Research*, **2013**, 49, 7457-7468	5.4	19
31	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	13.2	17
30	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	5	17
29	Quantifying the potential for reservoirs to secure future surface water yields in the world's largest river basins. *Environmental Research Letters*, **2018**, 13, 044026	6.2	14
28	Permafrost variability over the Northern Hemisphere based on the MERRA-2 reanalysis. *Cryosphere*, **2019**, 13, 2087-2110	5.5	14
27	Evaluation of ensemble-based distributed hydrologic model response with disaggregated precipitation products. *Water Resources Research*, **2008**, 44,	5.4	11
26	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	4.7	10

25	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,	3.5	9
24	Probabilistic Stormwater Runoff and Water Quality Modeling of a Highway in Suburban Maryland. *Journal of Hydrologic Engineering - ASCE*, **2018**, 23, 05017034	1.8	8
23	Performance of Different Climate Data Sources in Mechanistic-Empirical Pavement Distress Analyses. *Journal of Transportation Engineering Part B: Pavements*, **2018**, 144, 04017023	1.4	7
22	Alternative Source of Climate Data for Mechanistic-Empirical Pavement Performance Prediction. *Transportation Research Record*, **2015**, 2524, 83-91	1.7	7
21	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	0.1	7
20	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	1.8	6
19	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**,		6
18	Evaluation and enhancement of permafrost modeling with the NASA Catchment Land Surface Model. *Journal of Advances in Modeling Earth Systems*, **2017**, 9, 2771-2795	7.1	6
17	River Regulation Alleviates the Impacts of Climate Change on U.S. Thermoelectricity Production. *Journal of Geophysical Research D: Atmospheres*, **2020**, 125, e2019JD031618	4.4	5
16	Snow Ensemble Uncertainty Project (SEUP): quantification of snow water equivalent uncertainty across North America via ensemble land surface modeling. *Cryosphere*, **2021**, 15, 771-791	5.5	5
15	Evaluation of four different climate sources on pavement mechanistic-empirical design and impact of surface shortwave radiation. *International Journal of Pavement Engineering*, **2019**, 1-14	2.6	3
14	Achieving Breakthroughs in Global Hydrologic Science by Unlocking the Power of Multisensor, Multidisciplinary Earth Observations. *AGU Advances*, **2021**, 2, e2021AV000455	5.4	3
13	Comparison of Vertical Surface Deformation Estimates Derived From Space-Based Gravimetry, Ground-Based GPS, and Model-Based Hydrologic Loading Over Snow-Dominated Watersheds in the United States. *Journal of Geophysical Research: Solid Earth*, **2020**, 125, e2020JB019432	3.6	3
12	Evaluation of shortwave and longwave radiation models for mechanistic-empirical pavement analysis. *International Journal of Pavement Engineering*, 1-11	2.6	2
11	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	4.7	2
10	Exploration of Synthetic Terrestrial Snow Mass Estimation via Assimilation of AMSR-E Brightness Temperature Spectral Differences Using the Catchment Land Surface Model and Support Vector Machine Regression. *Water Resources Research*, **2021**, 57, e2020WR027490	5.4	2
9	Soil moisture estimation in South Asia via assimilation of SMAP retrievals. *Hydrology and Earth System Sciences*, **2022**, 26, 2221-2243	5.5	2
8	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	4.7	1

7   Assimilation of Ground-Based GPS Observations of Vertical Displacement into a Land Surface Model to Improve Terrestrial Water Storage Estimates. *Water Resources Research*, **2021**, 57, e2020WR028763   5.4   1

6   Quantifying the observational requirements of a space-borne LiDAR snow mission. *Journal of Hydrology*, **2021**, 601, 126709   6   1

5   Impact of Covariance Localization on Ensemble Estimation of Surface Downwelling Longwave and Shortwave Radiation Fluxes. *Journal of Hydrometeorology*, **2012**, 13, 1301-1316   3.7

4   Exploring the Spatiotemporal Coverage of Terrestrial Snow Mass Using a Suite of Satellite Constellation Configurations. *Remote Sensing*, **2022**, 14, 633   5

3   Evaluation of GEOS-Simulated L-Band Microwave Brightness Temperature Using Aquarius Observations over Non-Frozen Land across North America. *Remote Sensing*, **2020**, 12, 3098   5

2   Estimating Terrestrial Snow Mass via Multi-Sensor Assimilation of Synthetic AMSR-E Brightness Temperature Spectral Differences and Synthetic GRACE Terrestrial Water Storage Retrievals. *Water Resources Research*, **2021**, 57, e2021WR029880   5.4

1   . *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*, **2021**, 14, 8849-8863   4.7