

# Barton A Forman

## List of Publications by Year in descending order

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43  
papers

1,089  
citations

516710

16  
h-index

414414

32  
g-index

49  
all docs

49  
docs citations

49  
times ranked

1867  
citing authors

#	ARTICLE	IF	CITATIONS
1	Evaluation of shortwave and longwave radiation models for mechanistic-empirical pavement analysis. <i>International Journal of Pavement Engineering</i> , 2022, 23, 3398-3408.	4.4	6
2	Exploring the Spatiotemporal Coverage of Terrestrial Snow Mass Using a Suite of Satellite Constellation Configurations. <i>Remote Sensing</i> , 2022, 14, 633.	4.0	0
3	Estimation of Snow Mass Information via Assimilation of C-Band Synthetic Aperture Radar Backscatter Observations Into an Advanced Land Surface Model. <i>IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing</i> , 2022, 15, 862-875.	4.9	1
4	Soil moisture estimation in South Asia via assimilation of SMAP retrievals. <i>Hydrology and Earth System Sciences</i> , 2022, 26, 2221-2243.	4.9	6
5	Evaluation of four different climate sources on pavement mechanistic-empirical design and impact of surface shortwave radiation. <i>International Journal of Pavement Engineering</i> , 2021, 22, 1155-1168.	4.4	8
6	Prediction of Active Microwave Backscatter Over Snow-Covered Terrain Across Western Colorado Using a Land Surface Model and Support Vector Machine Regression. <i>IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing</i> , 2021, 14, 2403-2417.	4.9	4
7	Assimilation of Ground-Based GPS Observations of Vertical Displacement into a Land Surface Model to Improve Terrestrial Water Storage Estimates. <i>Water Resources Research</i> , 2021, 57, e2020WR028763.	4.2	5
8	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. <i>Water Resources Research</i> , 2021, 57, e2020WR027490.	4.2	5
9	Snow Ensemble Uncertainty Project (SEUP): quantification of snow water equivalent uncertainty across North America via ensemble land surface modeling. <i>Cryosphere</i> , 2021, 15, 771-791.	3.9	30
10	Estimating Terrestrial Snow Mass via Multi-Sensor Assimilation of Synthetic AMSR-E Brightness Temperature Spectral Differences and Synthetic GRACE Terrestrial Water Storage Retrievals. <i>Water Resources Research</i> , 2021, 57, e2021WR029880.	4.2	2
11	Quantifying the observational requirements of a space-borne LiDAR snow mission. <i>Journal of Hydrology</i> , 2021, 601, 126709.	5.4	6
12	Passive Microwave Brightness Temperature Assimilation to Improve Snow Mass Estimation Across Complex Terrain in Pakistan, Afghanistan, and Tajikistan. <i>IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing</i> , 2021, 14, 8849-8863.	4.9	0
13	Achieving Breakthroughs in Global Hydrologic Science by Unlocking the Power of Multisensor, Multidisciplinary Earth Observations. <i>AGU Advances</i> , 2021, 2, e2021AV000455.	5.4	10
14	Evaluation of GEOS-Simulated L-Band Microwave Brightness Temperature Using Aquarius Observations over Non-Frozen Land across North America. <i>Remote Sensing</i> , 2020, 12, 3098.	4.0	0
15	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. <i>Journal of Geophysical Research: Solid Earth</i> , 2020, 125, e2020JB019432.	3.4	6
16	River Regulation Alleviates the Impacts of Climate Change on U.S. Thermoelectricity Production. <i>Journal of Geophysical Research D: Atmospheres</i> , 2020, 125, e2019JD031618.	3.3	8
17	Diagnostic Analysis of a Data Assimilation Framework for Improving Snow Mass Estimation in Complex Terrain. , 2020, , .		0
18	Analyzing Machine Learning Predictions of Passive Microwave Brightness Temperature Spectral Difference Over Snow-Covered Terrain in High Mountain Asia. <i>Frontiers in Earth Science</i> , 2019, 7, .	1.8	13

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19	Permafrost variability over the Northern Hemisphere based on the MERRA-2 reanalysis. <i>Cryosphere</i> , 2019, 13, 2087-2110.	3.9	21
20	Evaluating the Uncertainty of Terrestrial Water Budget Components Over High Mountain Asia. <i>Frontiers in Earth Science</i> , 2019, 7, .	1.8	47
21	Implications of water constraints on electricity capacity expansion in the United States. <i>Nature Sustainability</i> , 2019, 2, 206-213.	23.7	33
22	Exploring the Utility of Machine Learning-Based Passive Microwave Brightness Temperature Data Assimilation over Terrestrial Snow in High Mountain Asia. <i>Remote Sensing</i> , 2019, 11, 2265.	4.0	29
23	Performance of Different Climate Data Sources in Mechanistic-Empirical Pavement Distress Analyses. <i>Journal of Transportation Engineering Part B: Pavements</i> , 2018, 144, .	1.5	7
24	Probabilistic Stormwater Runoff and Water Quality Modeling of a Highway in Suburban Maryland. <i>Journal of Hydrologic Engineering - ASCE</i> , 2018, 23, 05017034.	1.9	14
25	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. <i>Water Resources Research</i> , 2018, 54, 6488-6509.	4.2	30
26	Assimilation of MODIS Snow Cover Fraction Observations into the NASA Catchment Land Surface Model. <i>Remote Sensing</i> , 2018, 10, 316.	4.0	32
27	Quantifying the potential for reservoirs to secure future surface water yields in the world's largest river basins. <i>Environmental Research Letters</i> , 2018, 13, 044026.	5.2	20
28	Machine learning predictions of passive microwave brightness temperature over snow-covered land using the special sensor microwave imager (SSM/I). <i>Physical Geography</i> , 2017, 38, 176-196.	1.4	14
29	Atmospheric and Forest Decoupling of Passive Microwave Brightness Temperature Observations Over Snow-Covered Terrain in North America. <i>IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing</i> , 2017, 10, 3172-3189.	4.9	15
30	Evaluation and Enhancement of Permafrost Modeling With the NASA Catchment Land Surface Model. <i>Journal of Advances in Modeling Earth Systems</i> , 2017, 9, 2771-2795.	3.8	8
31	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
32	Alternative Source of Climate Data for Mechanistic Empirical Pavement Performance Prediction. <i>Transportation Research Record</i> , 2015, 2524, 83-91.	1.9	11
33	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. <i>IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing</i> , 2015, 8, 4431-4441.	4.9	32
34	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. <i>Remote Sensing of Environment</i> , 2015, 170, 153-165.	11.0	25
35	Estimating Passive Microwave Brightness Temperature Over Snow-Covered Land in North America Using a Land Surface Model and an Artificial Neural Network. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2014, 52, 235-248.	6.3	27
36	Connecting Satellite Observations with Water Cycle Variables Through Land Data Assimilation: Examples Using the NASA GEOS-5 LDAS. <i>Surveys in Geophysics</i> , 2014, 35, 577-606.	4.6	54

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37	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
38	The spatial scale of model errors and assimilated retrievals in a terrestrial water storage assimilation system. Water Resources Research, 2013, 49, 7457-7468.	4.2	19
39	Impact of Covariance Localization on Ensemble Estimation of Surface Downwelling Longwave and Shortwave Radiation Fluxes. Journal of Hydrometeorology, 2012, 13, 1301-1316.	1.9	0
40	Assessment and Enhancement of MERRA Land Surface Hydrology Estimates. Journal of Climate, 2011, 24, 6322-6338.	3.2	409
41	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.	4.9	38
42	Vegetation controls on soil moisture distribution in the Valles Caldera, New Mexico, during the North American monsoon. Ecohydrology, 2008, 1, 225-238.	2.4	66
43	Evaluation of ensemble-based distributed hydrologic model response with disaggregated precipitation products. Water Resources Research, 2008, 44, .	4.2	13