Jeffrey B Basara

List of Publications by Year
in descending order

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101	5,112	81900	91884
papers	citations	39 h-index	69 g-index

106	106	106	4809
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Statewide Monitoring of the Mesoscale Environment: A Technical Update on the Oklahoma Mesonet. Journal of Atmospheric and Oceanic Technology, 2007, 24, 301-321.	1.3	416
2	Flash Droughts: A Review and Assessment of the Challenges Imposed by Rapid-Onset Droughts in the United States. Bulletin of the American Meteorological Society, 2018, 99, 911-919.	3.3	317
3	Description and Evaluation of the Characteristics of the NCAR High-Resolution Land Data Assimilation System. Journal of Applied Meteorology and Climatology, 2007, 46, 694-713.	1.5	243
4	Evaluation of MODIS NDVI and NDWI for vegetation drought monitoring using Oklahoma Mesonet soil moisture data. Geophysical Research Letters, 2008, 35, .	4.0	206
5	Examining Rapid Onset Drought Development Using the Thermal Infraredâ€“Based Evaporative Stress Index. Journal of Hydrometeorology, 2013, 14, 1057-1074.	1.9	205
6	Verification of a Mesoscale Data-Assimilation and Forecasting System for the Oklahoma City Area during the Joint Urban 2003 Field Project. Journal of Applied Meteorology and Climatology, 2006, 45, 912-929.	1.5	197
7	A Multiscale Remote Sensing Model for Disaggregating Regional Fluxes to Micrometeorological Scales. Journal of Hydrometeorology, 2004, 5, 343-363.	1.9	189
8	Using ENVISAT ASAR Global Mode Data for Surface Soil Moisture Retrieval Over Oklahoma, USA. IEEE Transactions on Geoscience and Remote Sensing, 2009, 47, 468-480.	6.3	165
9	Evaluation of the North American Land Data Assimilation System over the southern Great Plains during the warm season. Journal of Geophysical Research, 2003, 108, .	3.3	157
10	The Impact of the Urban Heat Island during an Intense Heat Wave in Oklahoma City. Advances in Meteorology, 2010, 2010, 1-10.	1.6	133
11	Global distribution, trends, and drivers of flash drought occurrence. Nature Communications, 2021, 12, 6330.	12.8	130
12	Mesoscale Monitoring of Soil Moisture across a Statewide Network. Journal of Atmospheric and Oceanic Technology, 2008, 25, 167-182.	1.3	127
13	Estimating profile soil moisture and groundwater variations using GRACE and Oklahoma Mesonet soil moisture data. Water Resources Research, 2008, 44, .	4.2	120
14	A Methodology for Flash Drought Identification: Application of Flash Drought Frequency across the United States. Journal of Hydrometeorology, 2019, 20, 833-846.	1.9	120
15	Urban and land surface effects on the 30 July 2003 mesoscale convective system event observed in the southern Great Plains. Journal of Geophysical Research, 2006, 111, .	3.3	118
16	On the discrepancy between eddy covariance and lysimetry-based surface flux measurements under strongly advective conditions. Advances in Water Resources, 2012, 50, 62-78.	3.8	81
17	Passive Microwave Soil Moisture Downscaling Using Vegetation Index and Skin Surface Temperature. Vadose Zone Journal, 2013, 12, 1-19.	2.2	79
18	The evolution, propagation, and spread of flash drought in the Central United States during 2012. Environmental Research Letters, 2019, 14, 084025.	5.2	74

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19	Seasonal to interannual variations of soil moisture measured in Oklahoma. International Journal of Climatology, 2004, 24, 1883-1896.	3.5	72
20	Evaluation of SMOS retrievals of soil moisture over the central United States with currently available in situ observations. Journal of Geophysical Research, 2012, 117, .	3.3	71
21	Sensitivity analysis of vegetation indices to drought over two tallgrass prairie sites. ISPRS Journal of Photogrammetry and Remote Sensing, 2015, 108, 151-160.	11.1	68
22	Flash drought development and cascading impacts associated with the 2010 Russian heatwave. Environmental Research Letters, 2020, 15, 094078.	5.2	66
23	Diurnal cycle of the Oklahoma City urban heat island. Journal of Geophysical Research, 2008, 113, .	3.3	64
24	Facilitating the Use of Drought Early Warning Information through Interactions with Agricultural Stakeholders. Bulletin of the American Meteorological Society, 2015, 96, 1073-1078.	3.3	64
25	Drought and Associated Impacts in the Great Plains of the United Statesâ€"A Review. International Journal of Geosciences, 2013, 04, 72-81.	0.6	62
26	Observations of the Overland Reintensification of Tropical Storm Erin (2007). Bulletin of the American Meteorological Society, 2009, 90, 1079-1094.	3.3	58
27	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
28	Linear relationships between root-zone soil moisture and atmospheric processes in the planetary boundary layer. Journal of Geophysical Research, 2002, 107, ACL 10-1.	3.3	54
29	New Soil Property Database Improves Oklahoma Mesonet Soil Moisture Estimates*. Journal of Atmospheric and Oceanic Technology, 2013, 30, 2585-2595.	1.3	54
30	Failure of Taylor's hypothesis in the atmospheric surface layer and its correction for eddyâ€covariance measurements. Geophysical Research Letters, 2017, 44, 4287-4295.	4.0	54
31	Biophysical controls on carbon and water vapor fluxes across a grassland climatic gradient in the United States. Agricultural and Forest Meteorology, 2015, 214-215, 293-305.	4.8	51
32	Assessing the Evolution of Soil Moisture and Vegetation Conditions during a Flash Droughtâ€"Flash Recovery Sequence over the South-Central United States. Journal of Hydrometeorology, 2019, 20, 549-562.	1.9	50
33	Land Surface Temperature Estimation from the Next Generation of Geostationary Operational Environmental Satellites: GOES Mâ€"Q. Journal of Applied Meteorology and Climatology, 2004, 43, 363-372.	1.7	48
34	Evaluation of Satellite Estimates of Land Surface Temperature from GOES over the United States. Journal of Applied Meteorology and Climatology, 2009, 48, 167-180.	1.5	48
35	Drought and Pluvial Dipole Events within the Great Plains of the United States. Journal of Applied Meteorology and Climatology, 2015, 54, 1886-1898.	1.5	46
36	An assessment of surface soil temperature products from numerical weather prediction models using groundâ€based measurements. Water Resources Research, 2012, 48, .	4.2	45

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37	Regional characteristics of flash droughts across the United States. Environmental Research Communications, 2019, 1, 125004.	2.3	44
38	Improved Installation Procedures for Deep-Layer Soil Moisture Measurements. Journal of Atmospheric and Oceanic Technology, 2000, 17, 879-884.	1.3	41
39	Examining the short-term impacts of diverse management practices on plant phenology and carbon fluxes of Old World bluestems pasture. Agricultural and Forest Meteorology, 2017, 237-238, 60-70.	4.8	41
40	Quantifying agricultural drought in tallgrass prairie region in the U.S. Southern Great Plains through analysis of a water-related vegetation index from MODIS images. Agricultural and Forest Meteorology, 2017, 246, 111-122.	4.8	40
41	Enhancing understanding and improving prediction of severe weather through spatiotemporal relational learning. Machine Learning, 2014, 95, 27-50.	5.4	39
42	Responses of gross primary production of grasslands and croplands under drought, pluvial, and irrigation conditions during 2010â€“2016, Oklahoma, USA. Agricultural Water Management, 2018, 204, 47-59.	5.6	38
43	The Oklahoma City Micronet. Meteorological Applications, 2011, 18, 252-261.	2.1	33
44	Carbon dioxide and water vapor fluxes in winter wheat and tallgrass prairie in central Oklahoma. Science of the Total Environment, 2018, 644, 1511-1524.	8.0	29
45	Agricultural and food security impacts from the 2010 Russia flash drought. Weather and Climate Extremes, 2021, 34, 100383.	4.1	29
46	Analysis and estimation of tallgrass prairie evapotranspiration in the central United States. Agricultural and Forest Meteorology, 2017, 232, 35-47.	4.8	27
47	Insights into Atmospheric Contributors to Urban Flash Flooding across the United States Using an Analysis of Rawinsonde Data and Associated Calculated Parameters. Journal of Applied Meteorology and Climatology, 2016, 55, 313-323.	1.5	26
48	The Oklahoma Mesonet's Skin Temperature Network. Journal of Atmospheric and Oceanic Technology, 2003, 20, 1496-1504.	1.3	25
49	Solar Energy Prediction: An International Contest to Initiate Interdisciplinary Research on Compelling Meteorological Problems. Bulletin of the American Meteorological Society, 2015, 96, 1388-1395.	3.3	25
50	Development of a Flash Drought Intensity Index. Atmosphere, 2021, 12, 741.	2.3	25
51	Quantifying Precipitation Efficiency and Drivers of Excessive Precipitation in Post-Landfall Hurricane Harvey. Journal of Hydrometeorology, 2020, 21, 433-452.	1.9	23
52	Enhancing modelâ€based land surface temperature estimates using multiplatform microwave observations. Journal of Geophysical Research D: Atmospheres, 2013, 118, 577-591.	3.3	22
53	A Geographic Information Systemsâ€“Based Analysis of Supercells across Oklahoma from 1994 to 2003. Journal of Applied Meteorology and Climatology, 2008, 47, 1518-1538.	1.5	21
54	Using spatiotemporal relational random forests to improve our understanding of severe weather processes. Statistical Analysis and Data Mining, 2011, 4, 407-429.	2.8	21

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55	Impacts of juniper woody plant encroachment into grasslands on local climate. Agricultural and Forest Meteorology, 2021, 307, 108508.	4.8	21
56	Sensitivity of Predictions of the Urban Surface Energy Balance and Heat Island to Variations of Urban Canopy Parameters in Simulations with the WRF Model. Journal of Applied Meteorology and Climatology, 2017, 56, 573-595.	1.5	20
57	A 10-year spatial climatology of squall line storms across Oklahoma. International Journal of Climatology, 2008, 28, 765-775.	3.5	18
58	Climate change affecting temperature and aridity zones: a case study in Eastern Inner Mongolia, China from 1960â€“2008. Theoretical and Applied Climatology, 2013, 113, 561-572.	2.8	18
59	An overview of ice storms and their impact in the United States. International Journal of Climatology, 2016, 36, 2811-2822.	3.5	18
60	Assessing agricultural drought in summer over Oklahoma Mesonet sites using the water-related vegetation index from MODIS. International Journal of Biometeorology, 2017, 61, 377-390.	3.0	18
61	Seasonal and interannual variability of landâ€“atmosphere coupling across the Southern Great Plains of North America using the North American regional reanalysis. International Journal of Climatology, 2018, 38, 964-978.	3.5	18
62	Towards a Unified and Coherent Land Surface Temperature Earth System Data Record from Geostationary Satellites. Remote Sensing, 2019, 11, 1399.	4.0	17
63	An Analysis of Severe Hail Swaths in the Southern Plains of the United States. Transactions in GIS, 2007, 11, 531-554.	2.3	16
64	Synoptic Characteristics of 14-Day Extreme Precipitation Events across the United States. Journal of Climate, 2020, 33, 6423-6440.	3.2	14
65	Significant Inversions and Rapid In Situ Cooling at a Well-Sited Oklahoma Mesonet Station. Journal of Applied Meteorology and Climatology, 2007, 46, 353-367.	1.5	13
66	Significant Winter Weather Events and Associated Socioeconomic Impacts (Federal Aid Expenditures) across Oklahoma: 2000â€“10. Weather, Climate, and Society, 2012, 4, 48-58.	1.1	13
67	Longâ€term analysis of the asynchronicity between temperature and precipitation maxima in the United States Great Plains. International Journal of Climatology, 2017, 37, 3919-3933.	3.5	13
68	Primary Atmospheric Drivers of Pluvial Years in the United States Great Plains. Journal of Hydrometeorology, 2018, 19, 643-658.	1.9	13
69	Diagnosing Moisture Sources for Flash Floods in the United States. Part II: Terrestrial and Oceanic Sources of Moisture. Journal of Hydrometeorology, 2019, 20, 1511-1531.	1.9	13
70	Polarimetric Signatures in Landfalling Tropical Cyclones. Monthly Weather Review, 2021, 149, 131-154.	1.4	13
71	Usage of Existing Meteorological Data Networks for Parameterized Road Ice Formation Modeling. Journal of Applied Meteorology and Climatology, 2017, 56, 1959-1976.	1.5	12
72	Tornadic Supercell Environments Analyzed Using Surface and Reanalysis Data: A Spatiotemporal Relational Data-Mining Approach. Journal of Applied Meteorology and Climatology, 2012, 51, 2203-2217.	1.5	11

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73	A Modified Framework for Quantifying Landâ€“Atmosphere Covariability during Hydrometeorological and Soil Wetness Extremes in Oklahoma. Journal of Applied Meteorology and Climatology, 2019, 58, 1465-1483.	1.5	11
74	Evaluation of Rainfall Measurements from the WXT510 Sensor for Use in the Oklahoma City Micronet. The Open Atmospheric Science Journal, 2009, 3, 39-47.	0.5	11
75	Atmospheric Contributors to Heavy Rainfall Events in the Arkansas-Red River Basin. Advances in Meteorology, 2016, 2016, 1-15.	1.6	10
76	Grassland productivity estimates informed by soil moisture measurements: Statistical and mechanistic approaches. Agronomy Journal, 2021, 113, 3498-3517.	1.8	10
77	Analysis of short-term droughts in Oklahoma. Eos, 2003, 84, 157-161.	0.1	9
78	Knowledge and tools to enhance resilience of beef grazing systems for sustainable animal protein production. Annals of the New York Academy of Sciences, 2014, 1328, 10-17.	3.8	9
79	A Semiphysical Microwave Surface Emission Model for Soil Moisture Retrieval. IEEE Transactions on Geoscience and Remote Sensing, 2015, 53, 4079-4090.	6.3	8
80	Challenges Associated with Classifying Urban Meteorological Stations: The Oklahoma City Micronet Example. The Open Atmospheric Science Journal, 2010, 4, 88-100.	0.5	8
81	The SMAP in situ soil moisture sensor testbed: Comparing in situ sensors for satellite validation. , 2010, , .		7
82	The Impact of Landâ€“Atmosphere Interactions on the Benson, Minnesota, Tornado of 11 June 2001. Bulletin of the American Meteorological Society, 2005, 86, 637-642.	3.3	6
83	The Effect of the Dry Line and Convective Initiation on Drought Evolution over Oklahoma during the 2011 Drought. Advances in Meteorology, 2017, 2017, 1-16.	1.6	6
84	Diagnosing Moisture Sources for Flash Floods in the United States. Part I: Kinematic Trajectories. Journal of Hydrometeorology, 2019, 20, 1495-1509.	1.9	5
85	Understanding the effects of pasture type and stocking rate on the hydrology of the Southern Great Plains. Science of the Total Environment, 2020, 708, 134873.	8.0	5
86	Evaluation of a land-atmosphere coupling metric computed from a ground-based infrared interferometer. Journal of Hydrometeorology, 2021, , .	1.9	5
87	Soil Moisture Observations for Flash Flood Research and Prediction. , 2001, , 231-241.		5
88	Role of Sea Surface Temperatures in Forcing Circulation Anomalies Driving U.S. Great Plains Pluvial Years. Journal of Climate, 2019, 32, 7081-7100.	3.2	4
89	An Analysis of the Processes Affecting Rapid Near-Surface Water Vapor Increases during the Afternoon to Evening Transition in Oklahoma. Journal of Applied Meteorology and Climatology, 2019, 58, 2217-2234.	1.5	4
90	Differential responses of native and managed prairie pastures to environmental variability and management practices. Agricultural and Forest Meteorology, 2020, 294, 108137.	4.8	4

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91	The Inland Maintenance and Re-intensification of Tropical Storm Bill (2015) Part 2: Precipitation Microphysics. Journal of Hydrometeorology, 2021, , .	1.9	4
92	Land Surface Temperature from GOES-East and GOES-West. Journal of Atmospheric and Oceanic Technology, 2021, 38, 843-858.	1.3	4
93	The WxChallenge: Forecasting Competition, Educational Tool, and Agent of Cultural Change. Bulletin of the American Meteorological Society, 2013, 94, 1501-1506.	3.3	3
94	Evidence of warm core structure maintenance over land: a case study analysis of cyclone Kelvin. Environmental Research Communications, 2021, 3, 045004.	2.3	3
95	Comparing Evapotranspiration Products of Different Temporal and Spatial Scales in Native and Managed Prairie Pastures. Remote Sensing, 2021, 13, 82.	4.0	3
96	Evaluation of a Heat Dissipation Sensor for In Situ Measurement of Soil Temperature. Soil Science Society of America Journal, 2013, 77, 741-747.	2.2	2
97	From Standard Weather Stations to Virtual Micro-Meteorological Towers in Ungauged Sites: Modeling Tool for Surface Energy Fluxes, Evapotranspiration, Soil Temperature, and Soil Moisture Estimations. Remote Sensing, 2021, 13, 1271.	4.0	2
98	Flash drought identification from satellite-based land surface water index. Remote Sensing Applications: Society and Environment, 2022, 26, 100770.	1.5	2
99	The Inland Maintenance and Reintensification of Tropical Storm Bill (2015) Part 1: Contributions of the Brown Ocean Effect. Journal of Hydrometeorology, 2021, , .	1.9	1
100	Improving a Biogeochemical Model to Simulate Microbialâ€mediated Carbon Dynamics in Agricultural ecosystems. Journal of Advances in Modeling Earth Systems, 2021, 13, e2021MS002752.	3.8	1
101	Mesoscale observations of an extended heat burst and associated wind storm in Central Oklahoma. Meteorological Applications, 2012, 19, 91-110.	2.1	0