Xubin Zeng

List of Publications by Year
in descending order

229 papers	15,284 citations	28190 55 h-index	20900 115 g-index
252 all docs	252 docs citations	252 times ranked	14374 citing authors

#	Article	IF	Citations
1	The Common Land Model. Bulletin of the American Meteorological Society, 2003, 84, 1013-1024.	1.7	1,058
2	The Community Land Model Version 5: Description of New Features, Benchmarking, and Impact of Forcing Uncertainty. Journal of Advances in Modeling Earth Systems, 2019, 11, 4245-4287.	1.3	692
3	Parameterization improvements and functional and structural advances in Version 4 of the Community Land Model. Journal of Advances in Modeling Earth Systems, 2011, 3, .	1.3	666
4	Intercomparison of Bulk Aerodynamic Algorithms for the Computation of Sea Surface Fluxes Using TOGA COARE and TAO Data. Journal of Climate, 1998, 11, 2628-2644.	1.2	626
5	The Land Surface Climatology of the Community Land Model Coupled to the NCAR Community Climate Model*. Journal of Climate, 2002, 15, 3123-3149.	1.2	583
6	Interactions between the atmosphere and terrestrial ecosystems: influence on weather and climate. Global Change Biology, 1998, 4, 461-475.	4.2	524
7	The DOE E3SM Coupled Model Version 1: Overview and Evaluation at Standard Resolution. Journal of Advances in Modeling Earth Systems, 2019, 11, 2089-2129.	1.3	404
8	COSMOS: the COsmic-ray Soil Moisture Observing System. Hydrology and Earth System Sciences, 2012, 16, 4079-4099.	1.9	401
9	Parameterization improvements and functional and structural advances in Version 4 of the Community Land Model. Journal of Advances in Modeling Earth Systems, 2011, 3, n/a-n/a.	1.3	367
10	Improving the representation of hydrologic processes in Earth System Models. Water Resources Research, 2015, 51, 5929-5956.	1.7	366
11	The Community Land Model and Its Climate Statistics as a Component of the Community Climate System Model. Journal of Climate, 2006, 19, 2302-2324.	1.2	320
12	Evaluation of the Reanalysis Products from GSFC, NCEP, and ECMWF Using Flux Tower Observations. Journal of Climate, 2012, 25, 1916-1944.	1.2	284
13	Hillslope Hydrology in Global Change Research and Earth System Modeling. Water Resources Research, 2019, 55, 1737-1772.	1.7	281
14	Derivation and Evaluation of Global 1-km Fractional Vegetation Cover Data for Land Modeling. Journal of Applied Meteorology and Climatology, 2000, 39, 826-839.	1.7	274
15	A Global Land Cover Climatology Using MODIS Data. Journal of Applied Meteorology and Climatology, 2014, 53, 1593-1605.	0.6	252
16	Coupling of the Common Land Model to the NCAR Community Climate Model. Journal of Climate, 2002, 15, 1832-1854.	1.2	224
17	A prognostic scheme of sea surface skin temperature for modeling and data assimilation. Geophysical Research Letters, 2005, 32, n/a-n/a.	1.5	216
18	Evaluation of multireanalysis products with in situ observations over the Tibetan Plateau. Journal of Geophysical Research, 2012, 117, .	3.3	213

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19	Global Vegetation Root Distribution for Land Modeling. Journal of Hydrometeorology, 2001, 2, 525-530.	0.7	191
20	A gridded global data set of soil, intact regolith, and sedimentary deposit thicknesses for regional and global land surface modeling. Journal of Advances in Modeling Earth Systems, 2016, 8, 41-65.	1.3	161
21	Effects of soil wetness, plant litter, and underâ€canopy atmospheric stability on ground evaporation in the Community Land Model (CLM3.5). Journal of Geophysical Research, 2009, 114, .	3.3	158
22	Evaluation of the Utility of Satellite-Based Vegetation Leaf Area Index Data for Climate Simulations. Journal of Climate, 2001, 14, 3536-3550.	1.2	152
23	Which Bulk Aerodynamic Algorithms are Least Problematic in Computing Ocean Surface Turbulent Fluxes?. Journal of Climate, 2003, 16, 619-635.	1.2	150
24	Estimating the Lyapunov-exponent spectrum from short time series of low precision. Physical Review Letters, 1991, 66, 3229-3232.	2.9	146
25	The Effect of Atmospheric Water Vapor on Neutron Count in the Cosmic-Ray Soil Moisture Observing System. Journal of Hydrometeorology, 2013, 14, 1659-1671.	0.7	133
26	Improving the Numerical Solution of Soil Moistureâ€“Based Richards Equation for Land Models with a Deep or Shallow Water Table. Journal of Hydrometeorology, 2009, 10, 308-319.	0.7	131
27	Comparison of seasonal and spatial variations of albedos from Moderate-Resolution Imaging Spectroradiometer (MODIS) and Common Land Model. Journal of Geophysical Research, 2003, 108, .	3.3	120
28	SEAFLUX. Bulletin of the American Meteorological Society, 2004, 85, 409-424.	1.7	120
29	Measurement depth of the cosmic ray soil moisture probe affected by hydrogen from various sources. Water Resources Research, 2012, 48, .	1.7	117
30	Comparison of seasonal and spatial variations of leaf area index and fraction of absorbed photosynthetically active radiation from Moderate Resolution Imaging Spectroradiometer (MODIS) and Common Land Model. Journal of Geophysical Research, 2004, 109, .	3.3	111
31	Do dynamic global vegetation models capture the seasonality of carbon fluxes in the Amazon basin? A dataâ€model intercomparison. Global Change Biology, 2017, 23, 191-208.	4.2	106
32	An Assessment of the Uncertainties in Ocean Surface Turbulent Fluxes in 11 Reanalysis, Satellite-Derived, and Combined Global Datasets. Journal of Climate, 2011, 24, 5469-5493.	1.2	105
33	Mechanisms of water supply and vegetation demand govern the seasonality and magnitude of evapotranspiration in Amazonia and Cerrado. Agricultural and Forest Meteorology, 2014, 191, 33-50.	1.9	105
34	Climatic Impact of Amazon Deforestationâ€"A Mechanistic Model Study. Journal of Climate, 1996, 9, 859-883.	1.2	102
35	Globally Unified Monsoon Onset and Retreat Indexes. Journal of Climate, 2004, 17, 2241-2248.	1.2	97
36	Satellite and In Situ Observations for Advancing Global Earth Surface Modelling: A Review. Remote Sensing, 2018, 10, 2038.	1.8	95

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37	Using MODIS BRDF and Albedo Data to Evaluate Global Model Land Surface Albedo. Journal of Hydrometeorology, 2004, 5, 3-14.	0.7	90
38	Terrestrial Carbon Cycle: Climate Relations in Eight CMIP5 Earth System Models. Journal of Climate, 2013, 26, 8744-8764.	1.2	88
39	Snowpack Change From 1982 to 2016 Over Conterminous United States. Geophysical Research Letters, 2018, 45, 12,940.	1.5	87
40	Analysis of a multiyear global vegetation leaf area index data set. Journal of Geophysical Research, 2002, 107, ACL 14-1.	3.3	85
41	A fully multipleâ€criteria implementation of the Sobolâ€² method for parameter sensitivity analysis. Journal of Geophysical Research, 2012, 117, .	3.3	85
42	How does snow impact the albedo of vegetated land surfaces as analyzed with MODIS data?. Geophysical Research Letters, 2002, 29, 12-1-12-4.	1.5	80
43	Comparison of Precipitation Observed over the Continental United States to That Simulated by a Climate Model. Journal of Climate, 1996, 9, 2233-2249.	1.2	79
44	A MODIS-Based Global 1-km Maximum Green Vegetation Fraction Dataset. Journal of Applied Meteorology and Climatology, 2014, 53, 1996-2004.	0.6	75
45	Marine Atmospheric Boundary Layer Height over the Eastern Pacific: Data Analysis and Model Evaluation. Journal of Climate, 2004, 17, 4159-4170.	1.2	74
46	Improvement of daytime land surface skin temperature over arid regions in the NCEP GFS model and its impact on satellite data assimilation. Journal of Geophysical Research, 2012, 117, .	3.3	72
47	Why Do Global Reanalyses and Land Data Assimilation Products Underestimate Snow Water Equivalent?. Journal of Hydrometeorology, 2016, 17, 2743-2761.	0.7	72
48	Effect of Surface Sublayer on Surface Skin Temperature and Fluxes. Journal of Climate, 1998, 11, 537-550.	1.2	70
49	Dependence of Land Surface Albedo on Solar Zenith Angle: Observations and Model Parameterization. Journal of Applied Meteorology and Climatology, 2008, 47, 2963-2982.	0.6	70
50	The role of root distribution for climate simulation over land. Geophysical Research Letters, 1998, 25, 4533-4536.	1.5	69
51	Growing temperate shrubs over arid and semiarid regions in the Community Land Modelâ€"Dynamic Global Vegetation Model. Global Biogeochemical Cycles, 2008, 22, .	1.9	69
52	An integrated modelling framework of catchmentâ€scale ecohydrological processes: 1. Model description and tests over an energyâ€limited watershed. Ecohydrology, 2014, 7, 427-439.	1.1	68
53	Relating MODIS-derived surface albedo to soils and rock types over Northern Africa and the Arabian peninsula. Geophysical Research Letters, 2002, 29, 67-1-67-4.	1.5	67
54	Chaos Theory and Its Applications to the Atmosphere. Bulletin of the American Meteorological Society, 1993, 74, 631-644.	1.7	62

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55	Evaluation of Snow Albedo in Land Models for Weather and Climate Studies. Journal of Applied Meteorology and Climatology, 2010, 49, 363-380.	0.6	59
56	Assessment of CMIP5 Model Simulations of the North American Monsoon System. Journal of Climate, 2013, 26, 8787-8801.	1.2	59
57	Landscape-Induced Atmospheric Flow and its Parameterization in Large-Scale Numerical Models. Journal of Climate, 1995, 8, 1156-1177.	1.2	58
58	Soil microbial respiration from observations and Earth System Models. Environmental Research Letters, 2013, 8, 034034.	2.2	56
59	A global 0.05Â° maximum albedo dataset of snow-covered land based on MODIS observations. Geophysical Research Letters, 2005, 32, .	1.5	55
60	Overview of the Large-Scale Biosphereâ€"Atmosphere Experiment in Amazonia Data Model Intercomparison Project (LBA-DMIP). Agricultural and Forest Meteorology, 2013, 182-183, 111-127.	1.9	55
61	Linking snowfall and snow accumulation to generate spatial maps of SWE and snow depth. Earth and Space Science, 2016, 3, 246-256.	1.1	55
62	A Hydrometeorological Perspective on the Karakoram Anomaly Using Unique Valleyâ€Based Synoptic Weather Observations. Geophysical Research Letters, 2017, 44, 10,470.	1.5	54
63	Estimating the Fractal Dimension and the Predictability of the Atmosphere. Journals of the Atmospheric Sciences, 1992, 49, 649-659.	0.6	53
64	Comparison of Landâ€"Precipitation Coupling Strength Using Observations and Models. Journal of Hydrometeorology, 2010, 11, 979-994.	0.7	53
65	Uncertainties in sea surface turbulent flux algorithms and data sets. Journal of Geophysical Research, 2002, 107, 5-1.	3.3	52
66	Interannual Variability and Decadal Trend of Global Fractional Vegetation Cover from 1982 to 2000. Journal of Applied Meteorology and Climatology, 2003, 42, 1525-1530.	1.7	52
67	Sensitivity of the NCEP/Noah land surface model to the MODIS green vegetation fraction data set. Geophysical Research Letters, 2006, 33, .	1.5	51
68	Aerosolâ€"Cloudâ€"Meteorology Interaction Airborne Field Investigations: Using Lessons Learned from the U.S. West Coast in the Design of ACTIVATE off the U.S. East Coast. Bulletin of the American Meteorological Society, 2019, 100, 1511-1528.	1.7	51
69	Heat and Momentum Fluxes Induced by Thermal Inhomogeneities with and without Large-Scale Flow. Journals of the Atmospheric Sciences, 1996, 53, 3286-3302.	0.6	50
70	Intercomparison of Seven NDVI Products over the United States and Mexico. Remote Sensing, 2014, 6, 1057-1084.	1.8	50
71	Multiple equilibrium states and the abrupt transitions in a dynamical system of soil water interacting with vegetation. Geophysical Research Letters, 2004, 31, n/a-n/a.	1.5	49
72	Development of Global Hourly 0.5Â° Land Surface Air Temperature Datasets. Journal of Climate, 2013, 26, 7676-7691.	1.2	49

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73	Implementing and Evaluating Variable Soil Thickness in the Community Land Model, Version 4.5 (CLM4.5). Journal of Climate, 2016, 29, 3441-3461.	1.2	49
74	The Landscape Evolution Observatory: A large-scale controllable infrastructure to study coupled Earth-surface processes. Geomorphology, 2015, 244, 190-203.	1.1	47
75	Improving snow processes in the Noah land model. Journal of Geophysical Research, 2010, 115, .	3.3	46
76	Translating aboveground cosmic-ray neutron intensity to high-frequency soil moisture profiles at sub-kilometer scale. Hydrology and Earth System Sciences, 2014, 18, 4363-4379.	1.9	46
77	Impact of Irrigation over the California Central Valley on Regional Climate. Journal of Hydrometeorology, 2017, 18, 1341-1357.	0.7	46
78	Impact of Modified Richards Equation on Global Soil Moisture Simulation in the Community Land Model (CLM3.5). Journal of Advances in Modeling Earth Systems, 2009, 1, .	1.3	45
79	Surface Skin Temperature and the Interplay between Sensible and Ground Heat Fluxes over Arid Regions. Journal of Hydrometeorology, 2012, 13, 1359-1370.	0.7	45
80	Estimates of Global Surface Hydrology and Heat Fluxes from the Community Land Model (CLM4.5) with Four Atmospheric Forcing Datasets. Journal of Hydrometeorology, 2016, 17, 2493-2510.	0.7	45
81	Treatment of Undercanopy Turbulence in Land Models. Journal of Climate, 2005, 18, 5086-5094.	1.2	44
82	Towards a comprehensive approach to parameter estimation in land surface parameterization schemes. Hydrological Processes, 2013, 27, 2075-2097.	1.1	43
83	Consistent Parameterization of Roughness Length and Displacement Height for Sparse and Dense Canopies in Land Models. Journal of Hydrometeorology, 2007, 8, 730-737.	0.7	42
84	A multiyear hourly sea surface skin temperature data set derived from the TOGA TAO bulk temperature and wind speed over the tropical Pacific. Journal of Geophysical Research, 1999, 104, 1525-1536.	3.3	41
85	A hybridâ€3D hillslope hydrological model for use in <scp>E</scp>arth system models. Water Resources Research, 2015, 51, 8218-8239.	1.7	41
86	The solar zenith angle dependence of desert albedo. Geophysical Research Letters, 2005, 32, .	1.5	40
87	Sensitivities of terrestrial water cycle simulations to the variations of precipitation and air temperature in China. Journal of Geophysical Research, 2011, 116, .	3.3	40
88	Comparison of land skin temperature from a land model, remote sensing, and in situ measurement. Journal of Geophysical Research D: Atmospheres, 2014, 119, 3093-3106.	1.2	40
89	A Wetâ€Bulb Temperatureâ€Based Rainâ€Snow Partitioning Scheme Improves Snowpack Prediction Over the Drier Western United States. Geophysical Research Letters, 2019, 46, 13825-13835.	1.5	39
90	Improving the treatment of the vertical snow burial fraction over short vegetation in the NCAR CLM3. Advances in Atmospheric Sciences, 2009, 26, 877-886.	1.9	38

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91	Measurements Of Fine-Scale Structure At The Top Of Marine Stratocumulus. Boundary-Layer Meteorology, 2000, 97, 331-357.	1.2	37
92	Evaluation of Remotely Sensed Snow Water Equivalent and Snow Cover Extent over the Contiguous United States. Journal of Hydrometeorology, 2018, 19, 1777-1791.	0.7	37
93	The Effects of Observed Fractional Vegetation Cover on the Land Surface Climatology of the Community Land Model. Journal of Hydrometeorology, 2004, 5, 823-830.	0.7	36
94	A New Snow Density Parameterization for Land Data Initialization. Journal of Hydrometeorology, 2017, 18, 197-207.	0.7	36
95	Evaluation of Greenland near surface air temperature datasets. Cryosphere, 2017, 11, 1591-1605.	1.5	36
96	Development of the Regional Arctic System Model (RASM): Near-Surface Atmospheric Climate Sensitivity. Journal of Climate, 2017, 30, 5729-5753.	1.2	35
97	Atmospheric Research Over the Western North Atlantic Ocean Region and North American East Coast: A Review of Past Work and Challenges Ahead. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2019JD031626.	1.2	35
98	Comparison of albedos computed by land surface models and evaluation against remotely sensed data. Journal of Geophysical Research, 2001, 106, 20687-20702.	3.3	34
99	Use of Observing System Simulation Experiments in the United States. Bulletin of the American Meteorological Society, 2020, 101, E1427-E1438.	1.7	34
100	Assessing the performance of a physically-based soil moisture module integrated within the Soil and Water Assessment Tool. Environmental Modelling and Software, 2018, 109, 329-341.	1.9	33
101	Parameterization of Wind Gustiness for the Computation of Ocean Surface Fluxes at Different Spatial Scales. Monthly Weather Review, 2002, 130, 2125-2133.	0.5	33
102	An intercomparison of bulk aerodynamic algorithms used over sea ice with data from the Surface Heat Budget for the Arctic Ocean (SHEBA) experiment. Journal of Geophysical Research, 2006, 111, .	3.3	32
103	Time Scales of Land Surface Hydrology. Journal of Hydrometeorology, 2006, 7, 868-879.	0.7	32
104	Enhancing the Noahâ€MP Ecosystem Response to Droughts With an Explicit Representation of Plant Water Storage Supplied by Dynamic Root Water Uptake. Journal of Advances in Modeling Earth Systems, 2020, 12, e2020MS002062.	1.3	32
105	Integration of a prognostic sea surface skin temperature scheme into weather and climate models. Journal of Geophysical Research, 2008, 113, .	3.3	31
106	Hillslope-scale experiment demonstrates the role of convergence during two-step saturation. Hydrology and Earth System Sciences, 2014, 18, 3681-3692.	1.9	31
107	Impact of Initialized Land Surface Temperature and Snowpack on Subseasonal to Seasonal Prediction Project, Phase I (LS4P-I): organization and experimental design. Geoscientific Model Development, 2021, 14, 4465-4494.	1.3	31
108	EXTRACTING LYAPUNOV EXPONENTS FROM SHORT TIME SERIES OF LOW PRECISION. Modern Physics Letters B, 1992, 06, 55-75.	1.0	30

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109	Atmosphere-terrestrial ecosystem interactions: implications for coupled modeling. Ecological Modelling, 1993, 67, 5-18.	1.2	30
110	The Relationship among Precipitation, Cloud-Top Temperature, and Precipitable Water over the Tropics. Journal of Climate, 1999, 12, 2503-2514.	1.2	30
111	Relationships between giant sea salt particles and clouds inferred from aircraft physicochemical data. Journal of Geophysical Research D: Atmospheres, 2017, 122, 3421-3434.	1.2	30
112	Does Soil Moisture Affect Warm Season Precipitation Over the Southern Great Plains?. Geophysical Research Letters, 2018, 45, 7866-7873.	1.5	30
113	Long-Term Variability of Climate. Journals of the Atmospheric Sciences, 1994, 51, 155-159.	0.6	29
114	Vegetationâ€"soil water interaction within a dynamical ecosystem model of grassland in semi-arid areas. Tellus, Series B: Chemical and Physical Meteorology, 2005, 57, 189-202.	0.8	29
115	The Hills Are Alive: Earth Science in a Controlled Environment. Eos, 2009, 90, 120-120.	0.1	29
116	Incipient subsurface heterogeneity and its effect on overland flow generation â€" insight from a modeling study of the first experiment at the Biosphere 2 Landscape Evolution Observatory. Hydrology and Earth System Sciences, 2014, 18, 1873-1883.	1.9	29
117	Areal estimation of intensity and frequency of summertime precipitation over a midlatitude region. Geophysical Research Letters, 2006, 33, .	1.5	28
118	The Equatorial Pacific Cold Tongue Bias in a Coupled Climate Model. Journal of Climate, 2008, 21, 5852-5869.	1.2	28
119	Is Weather Chaotic?: Coexistence of Chaos and Order within a Generalized Lorenz Model. Bulletin of the American Meteorological Society, 2021, 102, E148-E158.	1.7	28
120	A proposed mechanism for the regulation of minimum midtropospheric temperatures in the Arctic. Journal of Geophysical Research, 2002, 107, ACL 2-1.	3.3	26
121	Urban Effects on Regional Climate: A Case Study in the Phoenix and Tucson â€œSun Corridorâ€. Earth Interactions, 2016, 20, 1-25.	0.7	26
122	An Overview of Atmospheric Features Over the Western North Atlantic Ocean and North American East Coastâ€"Part 2: Circulation, Boundary Layer, and Clouds. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD033423.	1.2	26
123	Land Surface Climate in the Regional Arctic System Model. Journal of Climate, 2016, 29, 6543-6562.	1.2	25
124	An Evaluation of Snow Initializations in NCEP Global and Regional Forecasting Models. Journal of Hydrometeorology, 2016, 17, 1885-1901.	0.7	25
125	Further Study on the Predictability of Landscape-Induced Atmospheric Flow. Journals of the Atmospheric Sciences, 1995, 52, 1680-1698.	0.6	24
126	Stratocumulus Cloud Clearings and Notable Thermodynamic and Aerosol Contrasts across the Clearâ€"Cloudy Interface. Journals of the Atmospheric Sciences, 2016, 73, 1083-1099.	0.6	24

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127	Moderate Resolution Imaging Spectroradiometer bidirectional reflectance distribution functionâ€"based albedo parameterization for weather and climate models. Journal of Geophysical Research, 2007, 112, .	3.3	23
128	Natural and drought scenarios in an east central Amazon forest: Fidelity of the Community Land Model 3.5 with three biogeochemical models. Journal of Geophysical Research, 2011, 116, .	3.3	23
129	Chaos in daisyworld. Tellus, Series B: Chemical and Physical Meteorology, 2022, 42, 309.	0.8	22
130	What is monthly mean land surface air temperature?. Eos, 2012, 93, 156-156.	0.1	22
131	Evaluation of 22 Precipitation and 23 Soil Moisture Products over a Semiarid Area in Southeastern Arizona*. Journal of Hydrometeorology, 2016, 17, 211-230.	0.7	22
132	Error-Growth Dynamics and Predictability of Surface Thermally Induced Atmospheric Flow. Journals of the Atmospheric Sciences, 1993, 50, 2817-2844.	0.6	21
133	Impact of diurnally-varying skin temperature on surface fluxes over the tropical Pacific. Geophysical Research Letters, 1998, 25, 1411-1414.	1.5	21
134	A comparison of ship and satellite measurements of cloud properties with global climate model simulations in the southeast Pacific stratus deck. Atmospheric Chemistry and Physics, 2010, 10, 6527-6536.	1.9	20
135	An integrated modelling framework of catchmentâ€scale ecohydrological processes: 2. The role of water subsidy by overland flow on vegetation dynamics in a semiâ€arid catchment. Ecohydrology, 2014, 7, 815-827.	1.1	20
136	A climatology of tropospheric humidity inversions in five reanalyses. Atmospheric Research, 2015, 153, 165-187.	1.8	20
137	Cloud drop number concentrations over the western North Atlantic Ocean: seasonal cycle, aerosol interrelationships, and other influential factors. Atmospheric Chemistry and Physics, 2021, 21, 10499-10526.	1.9	20
138	The hindcast skill of the CMIP ensembles for the surface air temperature trend. Journal of Geophysical Research, 2012, 117, .	3.3	19
139	Why Are There More Summer Afternoon Low Clouds Over the Tibetan Plateau Compared to Eastern China?. Geophysical Research Letters, 2020, 47, e2020GL089665.	1.5	19
140	On Assessing ERA5 and MERRA2 Representations of Coldâ€Air Outbreaks Across the Gulf Stream. Geophysical Research Letters, 2021, 48, e2021GL094364.	1.5	19
141	What does a low-dimensional weather attractor mean?. Physics Letters, Section A: General, Atomic and Solid State Physics, 1993, 175, 299-304.	0.9	18
142	Summer Soil Moisture Spatiotemporal Variability in Southeastern Arizona. Journal of Hydrometeorology, 2014, 15, 1473-1485.	0.7	18
143	Testing the hybridâ€3âD hillslope hydrological model in a controlled environment. Water Resources Research, 2016, 52, 1089-1107.	1.7	18
144	Better calibration of cloud parameterizations and subgrid effects increases the fidelity of the E3SM Atmosphere Model version 1. Geoscientific Model Development, 2022, 15, 2881-2916.	1.3	17

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145	Land surface modeling inside the Biosphere 2 tropical rain forest biome. Journal of Geophysical Research, 2010, 115, .	3.3	16
146	The COsmic-ray Soil Moisture Observing System (COSMOS): a non-invasive, intermediate scale soil moisture measurement network. , 0, , .		16
147	How does the partitioning of evapotranspiration and runoff between different processes affect the variability and predictability of soil moisture and precipitation?. Advances in Atmospheric Sciences, 2003, 20, 475-478.	1.9	15
148	An empirical formulation of soil ice fraction based on in situ observations. Geophysical Research Letters, 2006, 33, .	1.5	15
149	Intermediately complex models for the hydrological interactions in the atmosphere-vegetation-soil system. Advances in Atmospheric Sciences, 2006, 23, 127-140.	1.9	15
150	Precipitation and precipitable water: Their temporalâ€spatial behaviors and use in determining monsoon onset/retreat and monsoon regions. Journal of Geophysical Research, 2009, 114, .	3.3	15
151	Range of monthly mean hourly land surface air temperature diurnal cycle over high northern latitudes. Journal of Geophysical Research D: Atmospheres, 2014, 119, 5836-5844.	1.2	15
152	Increased Likelihood of Appreciable Afternoon Rainfall Over Wetter or Drier Soils Dependent Upon Atmospheric Dynamic Influence. Geophysical Research Letters, 2020, 47, e2020GL087779.	1.5	15
153	Mesoscale fluxes over heterogeneous flat landscapes for use in larger scale models. Journal of Hydrology, 1997, 190, 317-336.	2.3	14
154	Understanding different precipitation seasonality regimes from water vapor and temperature fields: Case studies. Geophysical Research Letters, 2005, 32, n/a-n/a.	1.5	14
155	Impacts of modified Richards equation on RegCM4 regional climate modeling over East Asia. Journal of Geophysical Research D: Atmospheres, 2014, 119, 12,642.	1.2	14
156	Global hourly land surface air temperature datasets: interâ€comparison and climate change. International Journal of Climatology, 2015, 35, 3959-3968.	1.5	14
157	Characteristics and Causes of Extreme Snowmelt over the Conterminous United States. Bulletin of the American Meteorological Society, 2021, 102, E1526-E1542.	1.7	14
158	The Compensatory CO₂ Fertilization and Stomatal Closure Effects on Runoff Projection From 2016â€“2099 in the Western United States. Water Resources Research, 2022, 58, .	1.7	14
159	A New Statistical Model for Predicting Seasonal North Atlantic Hurricane Activity. Weather and Forecasting, 2015, 30, 730-741.	0.5	13
160	CO₂diffusion into pore spaces limits weathering rate of an experimental basalt landscape. Geology, 2017, 45, 203-206.	2.0	13
161	Evaluation of SMAP Soil Moisture Relative to Five Other Satellite Products Using the Climate Reference Network Measurements Over USA. IEEE Transactions on Geoscience and Remote Sensing, 2018, 56, 6296-6305.	2.7	13
162	Revising the Ensemble-Based Kalman Filter Covariance for the Retrieval of Deep-Layer Soil Moisture. Journal of Hydrometeorology, 2010, 11, 219-227.	0.7	12

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163	Spatiotemporal Variability of Summer Precipitation in Southeastern Arizona. Journal of Hydrometeorology, 2013, 14, 1944-1951.	0.7	12
164	The Impact of a Low Bias in Snow Water Equivalent Initialization on CFS Seasonal Forecasts. Journal of Climate, 2017, 30, 8657-8671.	1.2	12
165	On the regulation of minimum mid-tropospheric temperatures in the Arctic. Geophysical Research Letters, 2004, 31, n/a-n/a.	1.5	11
166	Temporal- and Spatial-Scale Dependence of Three CMIP3 Climate Models in Simulating the Surface Temperature Trend in the Twentieth Century. Journal of Climate, 2012, 25, 2456-2470.	1.2	11
167	Subtropical Marine Low Stratiform Cloud Deck Spatial Errors in the E3SMv1 Atmosphere Model. Geophysical Research Letters, 2019, 46, 12598-12607.	1.5	11
168	Likelihood of rapidly increasing surface temperatures unaccompanied by strong warming in the free troposphere. Climate Research, 2004, 25, 185-190.	0.4	11
169	Chaos in daisyworld. Tellus, Series B: Chemical and Physical Meteorology, 1990, 42, 309-318.	0.8	10
170	A toy model for monthly river flow forecasting. Journal of Hydrology, 2012, 452-453, 226-231.	2.3	9
171	Global warming projection in the 21st century based on an observational dataâ€driven model. Geophysical Research Letters, 2016, 43, 10,947.	1.5	9
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