

Kevin Edward Trenberth

List of Publications by Year in descending order

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274
papers

62,564
citations

1980

101
h-index

906

241
g-index

282
all docs

282
docs citations

282
times ranked

37267
citing authors

#	ARTICLE	IF	CITATIONS
1	The ERA-40 re-analysis. Quarterly Journal of the Royal Meteorological Society, 2005, 131, 2961-3012.	1.0	6,198
2	Changes in precipitation with climate change. Climate Research, 2011, 47, 123-138.	0.4	2,463
3	The Definition of El Niño. Bulletin of the American Meteorological Society, 1997, 78, 2771-2777.	1.7	2,293
4	The Changing Character of Precipitation. Bulletin of the American Meteorological Society, 2003, 84, 1205-1218.	1.7	2,280
5	Global warming and changes in drought. Nature Climate Change, 2014, 4, 17-22.	8.1	2,231
6	Decadal atmosphere-ocean variations in the Pacific. Climate Dynamics, 1994, 9, 303-319.	1.7	2,010
7	A Global Dataset of Palmer Drought Severity Index for 1870–2002: Relationship with Soil Moisture and Effects of Surface Warming. Journal of Hydrometeorology, 2004, 5, 1117-1130.	0.7	1,740
8	Modern Global Climate Change. Science, 2003, 302, 1719-1723.	6.0	1,525
9	Earth's Global Energy Budget. Bulletin of the American Meteorological Society, 2009, 90, 311-324.	1.7	1,417
10	Progress during TOGA in understanding and modeling global teleconnections associated with tropical sea surface temperatures. Journal of Geophysical Research, 1998, 103, 14291-14324.	3.3	1,388
11	Earth's Annual Global Mean Energy Budget. Bulletin of the American Meteorological Society, 1997, 78, 197-208.	1.7	1,129
12	Recent Observed Interdecadal Climate Changes in the Northern Hemisphere. Bulletin of the American Meteorological Society, 1990, 71, 988-993.	1.7	978
13	Estimates of Freshwater Discharge from Continents: Latitudinal and Seasonal Variations. Journal of Hydrometeorology, 2002, 3, 660-687.	0.7	912
14	Indices of El Niño Evolution. Journal of Climate, 2001, 14, 1697-1701.	1.2	800
15	The COSMIC/FORMOSAT-3 Mission: Early Results. Bulletin of the American Meteorological Society, 2008, 89, 313-334.	1.7	783
16	Changes in Continental Freshwater Discharge from 1948 to 2004. Journal of Climate, 2009, 22, 2773-2792.	1.2	767
17	Atlantic hurricanes and natural variability in 2005. Geophysical Research Letters, 2006, 33, .	1.5	729
18	Estimates of the Global Water Budget and Its Annual Cycle Using Observational and Model Data. Journal of Hydrometeorology, 2007, 8, 758-769.	0.7	716

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19	Estimates of Meridional Atmosphere and Ocean Heat Transports. <i>Journal of Climate</i> , 2001, 14, 3433-3443.	1.2	690
20	Effects of Clouds, Soil Moisture, Precipitation, and Water Vapor on Diurnal Temperature Range. <i>Journal of Climate</i> , 1999, 12, 2451-2473.	1.2	674
21	Trends and variability in column-integrated atmospheric water vapor. <i>Climate Dynamics</i> , 2005, 24, 741-758.	1.7	663
22	The 1990-1995 El Niño-Southern Oscillation Event: Longest on Record. <i>Geophysical Research Letters</i> , 1996, 23, 57-60.	1.5	640
23	Model-based evidence of deep-ocean heat uptake during surface-temperature hiatus periods. <i>Nature Climate Change</i> , 2011, 1, 360-364.	8.1	610
24	Attribution of climate extreme events. <i>Nature Climate Change</i> , 2015, 5, 725-730.	8.1	605
25	Relationships between precipitation and surface temperature. <i>Geophysical Research Letters</i> , 2005, 32, n/a-n/a.	1.5	537
26	Atmospheric Moisture Recycling: Role of Advection and Local Evaporation. <i>Journal of Climate</i> , 1999, 12, 1368-1381.	1.2	528
27	An apparent hiatus in global warming?. <i>Earth's Future</i> , 2013, 1, 19-32.	2.4	527
28	Signal Versus Noise in the Southern Oscillation. <i>Monthly Weather Review</i> , 1984, 112, 326-332.	0.5	495
29	Distinctive climate signals in reanalysis of global ocean heat content. <i>Geophysical Research Letters</i> , 2013, 40, 1754-1759.	1.5	490
30	GPS Sounding of the Atmosphere from Low Earth Orbit: Preliminary Results. <i>Bulletin of the American Meteorological Society</i> , 1996, 77, 19-40.	1.7	489
31	Title is missing!. , 1998, 39, 667-694.		489
32	Conceptual Framework for Changes of Extremes of the Hydrological Cycle with Climate Change. , 1999, 42, 327-339.		468
33	Improved estimates of ocean heat content from 1960 to 2015. <i>Science Advances</i> , 2017, 3, e1601545.	4.7	460
34	Atmospheric Moisture Transports from Ocean to Land and Global Energy Flows in Reanalyses. <i>Journal of Climate</i> , 2011, 24, 4907-4924.	1.2	459
35	The Northern Hemisphere Sea-Level Pressure Data Set: Trends, Errors and Discontinuities. <i>Monthly Weather Review</i> , 1980, 108, 855-872.	0.5	443
36	El Niño and climate change. <i>Geophysical Research Letters</i> , 1997, 24, 3057-3060.	1.5	422

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37	The Global Monsoon as Seen through the Divergent Atmospheric Circulation. <i>Journal of Climate</i> , 2000, 13, 3969-3993.	1.2	421
38	Simulation of Global Land Surface Conditions from 1948 to 2004. Part I: Forcing Data and Evaluations. <i>Journal of Hydrometeorology</i> , 2006, 7, 953-975.	0.7	416
39	Observed and model-simulated diurnal cycles of precipitation over the contiguous United States. <i>Journal of Geophysical Research</i> , 1999, 104, 6377-6402.	3.3	412
40	The Diurnal Cycle and Its Depiction in the Community Climate System Model. <i>Journal of Climate</i> , 2004, 17, 930-951.	1.2	408
41	Externally Forced and Internally Generated Decadal Climate Variability Associated with the Interdecadal Pacific Oscillation. <i>Journal of Climate</i> , 2013, 26, 7298-7310.	1.2	405
42	Climate Change and Drought: a Perspective on Drought Indices. <i>Current Climate Change Reports</i> , 2018, 4, 145-163.	2.8	381
43	CLIMATE: Uncertainty in Hurricanes and Global Warming. <i>Science</i> , 2005, 308, 1753-1754.	6.0	374
44	Evolution of El Niño–Southern Oscillation and global atmospheric surface temperatures. <i>Journal of Geophysical Research</i> , 2002, 107, AAC 5-1.	3.3	373
45	Simulation of Present-Day and Twenty-First-Century Energy Budgets of the Southern Oceans. <i>Journal of Climate</i> , 2010, 23, 440-454.	1.2	371
46	A review of global ocean temperature observations: Implications for ocean heat content estimates and climate change. <i>Reviews of Geophysics</i> , 2013, 51, 450-483.	9.0	367
47	Effects of Mount Pinatubo volcanic eruption on the hydrological cycle as an analog of geoen지니어ing. <i>Geophysical Research Letters</i> , 2007, 34, .	1.5	366
48	Storm Tracks in the Southern Hemisphere. <i>Journals of the Atmospheric Sciences</i> , 1991, 48, 2159-2178.	0.6	358
49	The Southern Oscillation Revisited: Sea Level Pressures, Surface Temperatures, and Precipitation. <i>Journal of Climate</i> , 2000, 13, 4358-4365.	1.2	354
50	How fast are the oceans warming?. <i>Science</i> , 2019, 363, 128-129.	6.0	350
51	Global variations in droughts and wet spells: 1900-1995. <i>Geophysical Research Letters</i> , 1998, 25, 3367-3370.	1.5	346
52	The recent Sahel drought is real. <i>International Journal of Climatology</i> , 2004, 24, 1323-1331.	1.5	343
53	The Mean Annual Cycle in Global Ocean Wind Stress. <i>Journal of Physical Oceanography</i> , 1990, 20, 1742-1760.	0.7	335
54	Evaluation of the atmospheric moisture and hydrological cycle in the NCEP/NCAR reanalyses. <i>Climate Dynamics</i> , 1998, 14, 213-231.	1.7	334

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55	Origins of the 1988 North American Drought. <i>Science</i> , 1988, 242, 1640-1645.	6.0	331
56	Storylines: an alternative approach to representing uncertainty in physical aspects of climate change. <i>Climatic Change</i> , 2018, 151, 555-571.	1.7	317
57	Spatial and temporal variations of the Southern Oscillation. <i>Quarterly Journal of the Royal Meteorological Society</i> , 1976, 102, 639-653.	1.0	309
58	On the Evolution of the Southern Oscillation. <i>Monthly Weather Review</i> , 1987, 115, 3078-3096.	0.5	294
59	Physical Processes Involved in the 1988 Drought and 1993 Floods in North America. <i>Journal of Climate</i> , 1996, 9, 1288-1298.	1.2	293
60	Climate extremes and climate change: The Russian heat wave and other climate extremes of 2010. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	284
61	Seasonal aspects of the recent pause in surface warming. <i>Nature Climate Change</i> , 2014, 4, 911-916.	8.1	276
62	Earth's Energy Imbalance. <i>Journal of Climate</i> , 2014, 27, 3129-3144.	1.2	275
63	Evaluation of the Global Atmospheric Moisture Budget as Seen from Analyses. <i>Journal of Climate</i> , 1995, 8, 2255-2272.	1.2	261
64	An Assessment of the Impact of Transient Eddies on the Zonal Flow during a Blocking Episode Using Localized Eliassen-Palm Flux Diagnostics. <i>Journals of the Atmospheric Sciences</i> , 1986, 43, 2070-2087.	0.6	250
65	An Evaluation and Intercomparison of Global Analyses from the National Meteorological Center and the European Centre for Medium Range Weather Forecasts. <i>Bulletin of the American Meteorological Society</i> , 1988, 69, 1047-1057.	1.7	248
66	Climate Diagnostics from Global Analyses: Conservation of Mass in ECMWF Analyses. <i>Journal of Climate</i> , 1991, 4, 707-722.	1.2	245
67	Global Warming and Winter Weather. <i>Science</i> , 2014, 343, 729-730.	6.0	231
68	Increasing ocean stratification over the past half-century. <i>Nature Climate Change</i> , 2020, 10, 1116-1123.	8.1	229
69	The peak structure and future changes of the relationships between extreme precipitation and temperature. <i>Nature Climate Change</i> , 2017, 7, 268-274.	8.1	221
70	Hurricane Harvey Links to Ocean Heat Content and Climate Change Adaptation. <i>Earth's Future</i> , 2018, 6, 730-744.	2.4	218
71	Quality of Reanalyses in the Tropics. <i>Journal of Climate</i> , 2001, 14, 1499-1510.	1.2	216
72	The global heat balance: heat transports in the atmosphere and ocean. <i>Climate Dynamics</i> , 1994, 10, 107-134.	1.7	215

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73	The large-scale energy budget of the Arctic. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	212
74	Challenges in Quantifying Changes in the Global Water Cycle. <i>Bulletin of the American Meteorological Society</i> , 2015, 96, 1097-1115.	1.7	212
75	Framing the way to relate climate extremes to climate change. <i>Climatic Change</i> , 2012, 115, 283-290.	1.7	210
76	Blocking in the Southern Hemisphere. <i>Monthly Weather Review</i> , 1985, 113, 3-21.	0.5	202
77	The atmospheric energy budget and implications for surface fluxes and ocean heat transports. <i>Climate Dynamics</i> , 2001, 17, 259-276.	1.7	199
78	The Mass of the Atmosphere: A Constraint on Global Analyses. <i>Journal of Climate</i> , 2005, 18, 864-875.	1.2	199
79	The Annual Cycle of the Energy Budget. Part II: Meridional Structures and Poleward Transports. <i>Journal of Climate</i> , 2008, 21, 2313-2325.	1.2	198
80	Seamless Poleward Atmospheric Energy Transports and Implications for the Hadley Circulation. <i>Journal of Climate</i> , 2003, 16, 3706-3722.	1.2	193
81	Has there been a hiatus?. <i>Science</i> , 2015, 349, 691-692.	6.0	189
82	What are the Seasons?. <i>Bulletin of the American Meteorological Society</i> , 1983, 64, 1276-1282.	1.7	182
83	Covariability of Components of Poleward Atmospheric Energy Transports on Seasonal and Interannual Timescales. <i>Journal of Climate</i> , 2003, 16, 3691-3705.	1.2	182
84	A Global Monthly Sea Surface Temperature Climatology. <i>Journal of Climate</i> , 1992, 5, 987-1001.	1.2	175
85	Some Effects of Finite Sample Size and Persistence on Meteorological Statistics. Part I: Autocorrelations. <i>Monthly Weather Review</i> , 1984, 112, 2359-2368.	0.5	174
86	Tracking Earth's Energy. <i>Science</i> , 2010, 328, 316-317.	6.0	163
87	Recent Trends in Cloudiness over the United States: A Tale of Monitoring Inadequacies. <i>Bulletin of the American Meteorological Society</i> , 2006, 87, 597-606.	1.7	161
88	Issues in Establishing Causes of the 1988 Drought over North America. <i>Journal of Climate</i> , 1992, 5, 159-172.	1.2	156
89	Global Sea Surface Temperature Analyses: Multiple Problems and Their Implications for Climate Analysis, Modeling, and Reanalysis. <i>Bulletin of the American Meteorological Society</i> , 1999, 80, 2661-2678.	1.7	148
90	A Less Cloudy Future: The Role of Subtropical Subsidence in Climate Sensitivity. <i>Science</i> , 2012, 338, 792-794.	6.0	145

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91	The Annual Cycle of the Energy Budget. Part I: Global Mean and Land-Ocean Exchanges. <i>Journal of Climate</i> , 2008, 21, 2297-2312.	1.2	142
92	The global heat balance: heat transports in the atmosphere and ocean. <i>Climate Dynamics</i> , 1994, 10, 107-134.	1.7	140
93	The global warming hiatus: Slowdown or redistribution?. <i>Earth's Future</i> , 2016, 4, 472-482.	2.4	134
94	Conceptual Framework for Changes of Extremes of the Hydrological Cycle With Climate Change. , 1999, , 327-339.		129
95	A quasi-biennial standing wave in the Southern Hemisphere and interrelations with sea surface temperature. <i>Quarterly Journal of the Royal Meteorological Society</i> , 1975, 101, 55-74.	1.0	127
96	Record-Setting Ocean Warmth Continued in 2019. <i>Advances in Atmospheric Sciences</i> , 2020, 37, 137-142.	1.9	126
97	Comparison of Global Precipitation Estimates across a Range of Temporal and Spatial Scales. <i>Journal of Climate</i> , 2016, 29, 7773-7795.	1.2	122
98	Characteristic Patterns of Variability of Sea Level Pressure in the Northern Hemisphere. <i>Monthly Weather Review</i> , 1981, 109, 1169-1189.	0.5	120
99	Atlantic Meridional Overturning Circulation: Observed Transport and Variability. <i>Frontiers in Marine Science</i> , 2019, 6, .	1.2	120
100	Global warming due to increasing absorbed solar radiation. <i>Geophysical Research Letters</i> , 2009, 36, .	1.5	117
101	Seasonal variations in global sea level pressure and the total mass of the atmosphere. <i>Journal of Geophysical Research</i> , 1981, 86, 5238-5246.	3.3	116
102	Difficulties in Obtaining Reliable Temperature Trends: Reconciling the Surface and Satellite Microwave Sounding Unit Records. <i>Journal of Climate</i> , 1998, 11, 945-967.	1.2	113
103	Using Atmospheric Budgets as a Constraint on Surface Fluxes. <i>Journal of Climate</i> , 1997, 10, 2796-2809.	1.2	110
104	The flow of energy through the earth's climate system. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2004, 130, 2677-2701.	1.0	105
105	Intermittency in Precipitation: Duration, Frequency, Intensity, and Amounts Using Hourly Data. <i>Journal of Hydrometeorology</i> , 2017, 18, 1393-1412.	0.7	105
106	Improved Estimates of Changes in Upper Ocean Salinity and the Hydrological Cycle. <i>Journal of Climate</i> , 2020, 33, 10357-10381.	1.2	105
107	Interannual Variability of the 500 mb Zonal Mean Flow in the Southern Hemisphere. <i>Monthly Weather Review</i> , 1979, 107, 1515-1524.	0.5	102
108	Upper Ocean Temperatures Hit Record High in 2020. <i>Advances in Atmospheric Sciences</i> , 2021, 38, 523-530.	1.9	99

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109	Planetary Waves at 500 mb in the Southern Hemisphere. <i>Monthly Weather Review</i> , 1980, 108, 1378-1389.	0.5	98
110	On past temperatures and anomalous late-20th-century warmth. <i>Eos</i> , 2003, 84, 256-256.	0.1	95
111	Insights into Earth's Energy Imbalance from Multiple Sources. <i>Journal of Climate</i> , 2016, 29, 7495-7505.	1.2	95
112	Observed climate variability and change of relevance to the biosphere. <i>Journal of Geophysical Research</i> , 2000, 105, 20101-20114.	3.3	94
113	On the Interpretation of the Diagnostic Quasi-Geostrophic Omega Equation. <i>Monthly Weather Review</i> , 1978, 106, 131-137.	0.5	93
114	Tracking Earth's Energy: From El Niño to Global Warming. <i>Surveys in Geophysics</i> , 2012, 33, 413-426.	2.1	91
115	An imperative for climate change planning: tracking Earth's global energy. <i>Current Opinion in Environmental Sustainability</i> , 2009, 1, 19-27.	3.1	88
116	An Earth-System Prediction Initiative for the Twenty-First Century. <i>Bulletin of the American Meteorological Society</i> , 2010, 91, 1377-1388.	1.7	88
117	Spurious trends in satellite MSU temperatures from merging different satellite records. <i>Nature</i> , 1997, 386, 164-167.	13.7	87
118	Rural land-use change and climate. <i>Nature</i> , 2004, 427, 213-213.	13.7	87
119	Climate change caused by human activities is happening and it already has major consequences. <i>Journal of Energy and Natural Resources Law</i> , 2018, 36, 463-481.	0.3	87
120	Monitoring Global Monthly Mean Surface Temperatures. <i>Journal of Climate</i> , 1992, 5, 1405-1423.	1.2	83
121	Atlantic meridional heat transports computed from balancing Earth's energy locally. <i>Geophysical Research Letters</i> , 2017, 44, 1919-1927.	1.5	81
122	Global, Regional, and Megacity Trends in the Highest Temperature of the Year: Diagnostics and Evidence for Accelerating Trends. <i>Earth's Future</i> , 2018, 6, 71-79.	2.4	81
123	Hydroclimatic Trends in the Mississippi River Basin from 1948 to 2004. <i>Journal of Climate</i> , 2007, 20, 4599-4614.	1.2	77
124	HESS Opinions "A perspective on isotope versus non-isotope approaches to determine the contribution of transpiration to total evaporation". <i>Hydrology and Earth System Sciences</i> , 2014, 18, 2815-2827.	1.9	77
125	Regional Energy and Water Cycles: Transports from Ocean to Land. <i>Journal of Climate</i> , 2013, 26, 7837-7851.	1.2	76
126	The total mass of the atmosphere. <i>Journal of Geophysical Research</i> , 1994, 99, 23079.	3.3	75

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127	The Vertical Structure of Temperature in the Tropics: Different Flavors of El Niño. Journal of Climate, 2006, 19, 4956-4973.	1.2	75
128	How Often Does It Really Rain?. Bulletin of the American Meteorological Society, 2018, 99, 289-298.	1.7	74
129	Metrics for the Diurnal Cycle of Precipitation: Toward Routine Benchmarks for Climate Models. Journal of Climate, 2016, 29, 4461-4471.	1.2	73
130	Atmospheric circulation climate changes. Climatic Change, 1995, 31, 427-453.	1.7	72
131	Challenges and Opportunities in Water Cycle Research: WCRP Contributions. Surveys in Geophysics, 2014, 35, 515-532.	2.1	72
132	Attribution of climate variations and trends to human influences and natural variability. Wiley Interdisciplinary Reviews: Climate Change, 2011, 2, 925-930.	3.6	71
133	Coordinated heat removal from the equatorial Pacific during the 1986-87 El Niño. Geophysical Research Letters, 1998, 25, 2659-2662.	1.5	70
134	Observed Southern Hemisphere Eddy Statistics at 500 mb: Frequency and Spatial Dependence. Journals of the Atmospheric Sciences, 1981, 38, 2585-2605.	0.6	69
135	Exploring drought and its implications for the future. Eos, 2004, 85, 27.	0.1	69
136	Interannual Variability of Patterns of Atmospheric Mass Distribution. Journal of Climate, 2005, 18, 2812-2825.	1.2	68
137	Comparison of Tropospheric Temperatures from Radiosondes and Satellites: 1979-98. Bulletin of the American Meteorological Society, 2000, 81, 2165-2177.	1.7	66
138	Relationships between tropical sea surface temperature and top-of-atmosphere radiation. Geophysical Research Letters, 2010, 37, .	1.5	66
139	Changes in Tropical Clouds and Radiation. Science, 2002, 296, 2095a-2095.	6.0	65
140	Some Effects of Finite Sample Size and Persistence on Meteorological Statistics. Part II: Potential Predictability. Monthly Weather Review, 1984, 112, 2369-2379.	0.5	63
141	The Effective Drag Coefficient for Evaluating Wind Stress over the Oceans. Journal of Climate, 1989, 2, 1507-1516.	1.2	63
142	Interannual variations in the atmospheric heat budget. Journal of Geophysical Research, 2002, 107, AAC 4-1.	3.3	63
143	Evaluation of surface water fluxes of the pan-Arctic land region with a land surface model and ERA-40 reanalysis. Journal of Geophysical Research, 2006, 111, .	3.3	63
144	Water and energy budgets of hurricanes and implications for climate change. Journal of Geophysical Research, 2007, 112, .	3.3	62

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145	An Observational Estimate of Inferred Ocean Energy Divergence. <i>Journal of Physical Oceanography</i> , 2008, 38, 984-999.	0.7	62
146	Climate variability and relationships between top-of-atmosphere radiation and temperatures on Earth. <i>Journal of Geophysical Research D: Atmospheres</i> , 2015, 120, 3642-3659.	1.2	62
147	Contrasting trends of mass and optical properties of aerosols over the Northern Hemisphere from 1992 to 2011. <i>Atmospheric Chemistry and Physics</i> , 2012, 12, 9387-9398.	1.9	60
148	Short-Term Climate Variations: Recent Accomplishments and Issues for Future Progress. <i>Bulletin of the American Meteorological Society</i> , 1997, 78, 1081-1096.	1.7	58
149	Mean annual poleward energy transports by the oceans in the southern hemisphere. <i>Dynamics of Atmospheres and Oceans</i> , 1979, 4, 57-64.	0.7	56
150	Water and energy budgets of hurricanes: Case studies of Ivan and Katrina. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	56
151	Interannual Variability of the Southern Hemisphere Circulation: Representativeness of the Year of the Global Weather Experiment. <i>Monthly Weather Review</i> , 1984, 112, 108-123.	0.5	55
152	Global atmospheric mass, surface pressure, and water vapor variations. <i>Journal of Geophysical Research</i> , 1987, 92, 14815-14826.	3.3	55
153	More knowledge, less certainty. <i>Nature Climate Change</i> , 2010, 1, 20-21.	8.1	54
154	2018 Continues Record Global Ocean Warming. <i>Advances in Atmospheric Sciences</i> , 2019, 36, 249-252.	1.9	54
155	Variations in the Three-Dimensional Structure of the Atmospheric Circulation with Different Flavors of El Niño. <i>Journal of Climate</i> , 2009, 22, 2978-2991.	1.2	53
156	Evolution of Ocean Heat Content Related to ENSO. <i>Journal of Climate</i> , 2019, 32, 3529-3556.	1.2	53
157	Planetary Waves Kinematically Forced by Himalayan Orography. <i>Journals of the Atmospheric Sciences</i> , 1988, 45, 2934-2948.	0.6	50
158	The use and abuse of climate models. <i>Nature</i> , 1997, 386, 131-133.	13.7	50
159	Satellite versus Surface Estimates of Air Temperature since 1979. <i>Journal of Climate</i> , 1996, 9, 2222-2232.	1.2	49
160	Accuracy of Atmospheric Energy Budgets from Analyses. <i>Journal of Climate</i> , 2002, 15, 3343-3360.	1.2	48
161	Needs Assessment for Climate Information on Decadal Timescales and Longer. <i>Procedia Environmental Sciences</i> , 2010, 1, 275-286.	1.3	48
162	Lessons Learned from IPCC AR4: Scientific Developments Needed to Understand, Predict, and Respond to Climate Change. <i>Bulletin of the American Meteorological Society</i> , 2009, 90, 497-514.	1.7	47

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163	Another Record: Ocean Warming Continues through 2021 despite La Niña Conditions. <i>Advances in Atmospheric Sciences</i> , 2022, 39, 373-385.	1.9	47
164	Progress and Prospects for Reanalysis for Weather and Climate. <i>Eos</i> , 2008, 89, 234-235.	0.1	46
165	Orographically Forced Planetary Waves in the Northern Hemisphere Winter: Steady State Model with Wave-Coupled Lower Boundary Formulation. <i>Journals of the Atmospheric Sciences</i> , 1988, 45, 657-681.	0.6	45
166	Observation-Based Estimates of Global and Basin Ocean Meridional Heat Transport Time Series. <i>Journal of Climate</i> , 2019, 32, 4567-4583.	1.2	45
167	Forced Planetary Waves in the Northern Hemisphere Winter: Wave-Coupled Orographic and Thermal Forcings. <i>Journals of the Atmospheric Sciences</i> , 1988, 45, 682-704.	0.6	44
168	Observed and simulated full-depth ocean heat-content changes for 1970–2005. <i>Ocean Science</i> , 2016, 12, 925-935.	1.3	44
169	Quasi-Biennial Fluctuations in Sea Level Pressures over the Northern Hemisphere. <i>Monthly Weather Review</i> , 1984, 112, 761-777.	0.5	40
170	Climate Variability and Global Warming. <i>Science</i> , 2001, 293, 48-49.	6.0	40
171	The Need for a Systems Approach to Climate Observations. <i>Bulletin of the American Meteorological Society</i> , 2002, 83, 1593-1602.	1.7	40
172	Seasonality in Southern Hemisphere Eddy Statistics at 500 mb. <i>Journals of the Atmospheric Sciences</i> , 1982, 39, 2507-2520.	0.6	39
173	A Pathological Problem with NCEP Reanalyses in the Stratosphere. <i>Journal of Climate</i> , 2002, 15, 690-695.	1.2	38
174	Interannual Variability of the Southern Hemisphere 500 mb Flow: Regional Characteristics. <i>Monthly Weather Review</i> , 1981, 109, 127-136.	0.5	37
175	Observation and integrated Earth-system science: A roadmap for 2016–2025. <i>Advances in Space Research</i> , 2016, 57, 2037-2103.	1.2	35
176	The ocean is warming, isn't it?. <i>Nature</i> , 2010, 465, 304-304.	13.7	34
177	The Signature of a Blocking Episode on the General Circulation in the Southern Hemisphere. <i>Journals of the Atmospheric Sciences</i> , 1986, 43, 2061-2069.	0.6	33
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