Jason E Smerdon

List of Publications by Year
in descending order

84 papers	7,522 citations	81900 39 h-index	56724 83 g-index
86 all docs	86 docs citations	86 times ranked	7859 citing authors

#	Article	IF	Citations
1	Unprecedented 21st century drought risk in the American Southwest and Central Plains. Science Advances, 2015, 1, e1400082.	10.3	1,092
2	Global warming and 21st century drying. Climate Dynamics, 2014, 43, 2607-2627.	3.8	782
3	Large contribution from anthropogenic warming to an emerging North American megadrought. Science, 2020, 368, 314-318.	12.6	527
4	Contribution of anthropogenic warming to California drought during 2012â€“2014. Geophysical Research Letters, 2015, 42, 6819-6828.	4.0	464
5	Twentyâ€First Century Drought Projections in the CMIP6 Forcing Scenarios. Earth's Future, 2020, 8, e2019EF001461.	6.3	435
6	European summer temperatures since Roman times. Environmental Research Letters, 2016, 11, 024001.	5.2	260
7	Rapid intensification of the emerging southwestern North American megadrought in 2020â€“2021. Nature Climate Change, 2022, 12, 232-234.	18.8	239
8	Projected drought risk in 1.5Â°C and 2Â°C warmer climates. Geophysical Research Letters, 2017, 44, 7419-7428.	4.0	227
9	Twentieth-century hydroclimate changes consistent with human influence. Nature, 2019, 569, 59-65.	27.8	192
10	Relative impacts of mitigation, temperature, and precipitation on 21st-century megadrought risk in the American Southwest. Science Advances, 2016, 2, e1600873.	10.3	168
11	Pan-Continental Droughts in North America over the Last Millennium*. Journal of Climate, 2014, 27, 383-397.	3.2	155
12	Revising midlatitude summer temperatures back to A.D.â€‰600 based on a wood density network. Geophysical Research Letters, 2015, 42, 4556-4562.	4.0	134
13	Mid-latitude freshwater availability reduced by projected vegetation responses to climate change. Nature Geoscience, 2019, 12, 983-988.	12.9	132
14	Borehole climate reconstructions: Spatial structure and hemispheric averages. Journal of Geophysical Research, 2004, 109, .	3.3	128
15	North American megadroughts in the Common Era: reconstructions and simulations. Wiley Interdisciplinary Reviews: Climate Change, 2016, 7, 411-432.	8.1	123
16	Six hundred years of South American tree rings reveal an increase in severe hydroclimatic events since mid-20th century. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 16816-16823.	7.1	119
17	A reconstruction of global hydroclimate and dynamical variables over the Common Era. Scientific Data, 2018, 5, 180086.	5.3	114
18	Signals and memory in tree-ring width and density data. Dendrochronologia, 2015, 35, 62-70.	2.2	112

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19	Air-ground temperature coupling and subsurface propagation of annual temperature signals. Journal of Geophysical Research, 2004, 109, n/a-n/a.	3.3	96
20	The worst North American drought year of the last millennium: 1934. Geophysical Research Letters, 2014, 41, 7298-7305.	4.0	86
21	Evaluating climate field reconstruction techniques using improved emulations of real-world conditions. Climate of the Past, 2014, 10, 1-19.	3.4	81
22	Continental heat gain in the global climate system. Geophysical Research Letters, 2002, 29, 8-1-8-3.	4.0	79
23	Daily, seasonal, and annual relationships between air and subsurface temperatures. Journal of Geophysical Research, 2006, 111, .	3.3	79
24	The Curious Case of Projected Twenty-First-Century Drying but Greening in the American West. Journal of Climate, 2017, 30, 8689-8710.	3.2	74
25	Stationarity of the tropical pacific teleconnection to North America in CMIP5/PMIP3 model simulations. Geophysical Research Letters, 2013, 40, 4927-4932.	4.0	68
26	Are Simulated Megadroughts in the North American Southwest Forced?*. Journal of Climate, 2015, 28, 124-142.	3.2	68
27	Conduction-dominated heat transport of the annual temperature signal in soil. Journal of Geophysical Research, 2003, 108, .	3.3	66
28	Spatial performance of four climate field reconstruction methods targeting the Common Era. Geophysical Research Letters, 2011, 38, n/a-n/a.	4.0	56
29	Internal oceanâ€atmosphere variability drives megadroughts in Western North America. Geophysical Research Letters, 2016, 43, 9886-9894.	4.0	56
30	Megadroughts in Southwestern North America in ECHO-G Millennial Simulations and Their Comparison to Proxy Drought Reconstructions*. Journal of Climate, 2013, 26, 7635-7649.	3.2	55
31	The 2016 Southeastern U.S. Drought: An Extreme Departure From Centennial Wetting and Cooling. Journal of Geophysical Research D: Atmospheres, 2017, 122, 10888-10905.	3.3	48
32	A Robust Null Hypothesis for the Potential Causes of Megadrought in Western North America. Journal of Climate, 2018, 31, 3-24.	3.2	47
33	Variable seasonal coupling between air and ground temperatures: A simple representation in terms of subsurface thermal diffusivity. Geophysical Research Letters, 2005, 32, .	4.0	46
34	North American Pancontinental Droughts in Model Simulations of the Last Millennium*. Journal of Climate, 2015, 28, 2025-2043.	3.2	46
35	Precipitation, Temperature, and Teleconnection Signals across the Combined North American, Monsoon Asia, and Old World Drought Atlases. Journal of Climate, 2017, 30, 7141-7155.	3.2	46
36	Blue Water Tradeâ€Offs With Vegetation in a CO₂â€Enriched Climate. Geophysical Research Letters, 2018, 45, 3115-3125.	4.0	46

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37	Growing impact of wildfire on western US water supply. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.1	46
38	Oceanic and radiative forcing of medieval megadroughts in the American Southwest. Science Advances, 2019, 5, eaax0087.	10.3	45
39	Late winter temperature response to large tropical volcanic eruptions in temperate western North America: Relationship to ENSO phases. Global and Planetary Change, 2014, 122, 238-250.	3.5	44
40	Reconstructing Earth's surface temperature over the past 2000 years: the science behind the headlines. Wiley Interdisciplinary Reviews: Climate Change, 2016, 7, 746-771.	8.1	43
41	A Pacific Centennial Oscillation Predicted by Coupled GCMs*. Journal of Climate, 2012, 25, 5943-5961.	3.2	41
42	Investigating the Causes of Increased Twentieth-Century Fall Precipitation over the Southeastern United States. Journal of Climate, 2019, 32, 575-590.	3.2	41
43	Bridging Past and Future Climate across Paleoclimatic Reconstructions, Observations, and Models: A Hydroclimate Case Study*. Journal of Climate, 2015, 28, 3212-3231.	3.2	40
44	A model study of the effects of climatic precipitation changes on ground temperatures. Journal of Geophysical Research, 2003, 108, .	3.3	34
45	The improbable but unexceptional occurrence of megadrought clustering in the American West during the Medieval Climate Anomaly. Environmental Research Letters, 2016, 11, 074025.	5.2	34
46	Global hydroclimatic response to tropical volcanic eruptions over the last millennium. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	33
47	A Euro-Mediterranean tree-ring reconstruction of the winter NAO index since 910ÂC.E.. Climate Dynamics, 2019, 53, 1567-1580.	3.8	32
48	Uncertainties, Limits, and Benefits of Climate Change Mitigation for Soil Moisture Drought in Southwestern North America. Earth's Future, 2021, 9, e2021EF002014.	6.3	30
49	A new archive of large volcanic events over the past millennium derived from reconstructed summer temperatures. Environmental Research Letters, 2017, 12, 094005.	5.2	28
50	Model-dependent spatial skill in pseudoproxy experiments testing climate field reconstruction methods for the Common Era. Climate Dynamics, 2016, 46, 1921-1942.	3.8	27
51	Revisiting the Leading Drivers of Pacific Coastal Drought Variability in the Contiguous United States. Journal of Climate, 2018, 31, 25-43.	3.2	27
52	Temperature Covariance in Tree Ring Reconstructions and Model Simulations Over the Past Millennium. Geophysical Research Letters, 2017, 44, 9458-9469.	4.0	25
53	Characterization of Air and Ground Temperature Relationships within the CMIP5 Historical and Future Climate Simulations. Journal of Geophysical Research D: Atmospheres, 2019, 124, 3903-3929.	3.3	25
54	Surface temperature trends in Russia over the past five centuries reconstructed from borehole temperatures. Journal of Geophysical Research, 2003, 108, .	3.3	24

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55	First assessment of continental energy storage in CMIP5 simulations. Geophysical Research Letters, 2016, 43, 5326-5335.	4.0	24
56	Impact of maximum borehole depths on inverted temperature histories in borehole paleoclimatology. Climate of the Past, 2011, 7, 745-756.	3.4	23
57	Winterâ€toâ€summer precipitation phasing in southwestern North America: A multicentury perspective from paleoclimatic modelâ€data comparisons. Journal of Geophysical Research D: Atmospheres, 2015, 120, 8052-8064.	3.3	23
58	Progress and uncertainties in global and hemispheric temperature reconstructions of the Common Era. Quaternary Science Reviews, 2022, 286, 107537.	3.0	23
59	Influence of internal variability on population exposure to hydroclimatic changes. Environmental Research Letters, 2017, 12, 044007.	5.2	22
60	Characterizing land surface processes: A quantitative analysis using airâ€ground thermal orbits. Journal of Geophysical Research, 2009, 114, .	3.3	21
61	A pseudoproxy assessment of data assimilation for reconstructing the atmosphereâ€“ocean dynamics of hydroclimate extremes. Climate of the Past, 2017, 13, 1435-1449.	3.4	16
62	Ground surface temperature and continental heat gain: uncertainties from underground. Environmental Research Letters, 2015, 10, 014009.	5.2	15
63	Cold Tropical Pacific Sea Surface Temperatures During the Late Sixteenthâ€Century North American Megadrought. Journal of Geophysical Research D: Atmospheres, 2018, 123, 11,307.	3.3	15
64	Global Temperature Responses to Large Tropical Volcanic Eruptions in Paleo Data Assimilation Products and Climate Model Simulations Over the Last Millennium. Paleoceanography and Paleoclimatology, 2021, 36, e2020PA004128.	2.9	14
65	ENSO-driven coupled megadroughts in North and South America over the last millennium. Nature Geoscience, 2021, 14, 739-744.	12.9	14
66	Projected Changes to Hydroclimate Seasonality in the Continental United States. Earth's Future, 2021, 9, e2021EF002019.	6.3	14
67	Coupled Model Biases Breed Spurious Lowâ€Frequency Variability in the Tropical Pacific Ocean. Geophysical Research Letters, 2018, 45, 10,609.	4.0	13
68	Paleoclimate Constraints on the Spatiotemporal Character of Past and Future Droughts. Journal of Climate, 2020, 33, 9883-9903.	3.2	13
69	Numerical studies on the Impact of the Last Glacial Cycle on recent borehole temperature profiles: implications for terrestrial energy balance. Climate of the Past, 2014, 10, 1693-1706.	3.4	10
70	Pacific Ocean Forcing and Atmospheric Variability Are the Dominant Causes of Spatially Widespread Droughts in the Contiguous United States. Journal of Geophysical Research D: Atmospheres, 2019, 124, 2507-2524.	3.3	10
71	Impact of borehole depths on reconstructed estimates of ground surface temperature histories and energy storage. Journal of Geophysical Research F: Earth Surface, 2015, 120, 763-778.	2.8	8
72	Oceanic Drivers of Widespread Summer Droughts in the United States Over the Common Era. Geophysical Research Letters, 2019, 46, 8271-8280.	4.0	8

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73	Regional Signatures of Forced North Atlantic SST Variability: A Limited Role for Aerosols and Greenhouse Gases. Geophysical Research Letters, 2022, 49, .	4.0	7
74	Disentangling the Regional Climate Impacts of Competing Vegetation Responses to Elevated Atmospheric CO 2. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD034108.	3.3	6
75	Gross Discrepancies between Observed and Simulated Twentieth-to-Twenty-First-Century Precipitation Trends in Southeastern South America. Journal of Climate, 2021, 34, 6441-6457.	3.2	6
76	The Role of Internal Variability in ITCZ Changes Over the Last Millennium. Geophysical Research Letters, 2022, 49, .	4.0	6
77	Impacts of the Last Glacial Cycle on ground surface temperature reconstructions over the last millennium. Geophysical Research Letters, 2017, 44, 355-364.	4.0	5
78	A pseudoproxy assessment of why climate field reconstruction methods perform the way they do in time and space. Climate of the Past, 2021, 17, 2583-2605.	3.4	5
79	Dynamical and hydrological changes in climate simulations of the last millennium. Climate of the Past, 2020, 16, 1285-1307.	3.4	4
80	Large infrequent rain events dominate the hydroclimate of Rapa Nui (Easter Island). Climate Dynamics, 2022, 59, 595-608.	3.8	4
81	A quantitative hydroclimatic context for the European Great Famine of 1315â€“1317. Communications Earth & Environment, 2020, 1, .	6.8	3
82	Influence of the South American Lowâ€Level Jet on the Austral Summer Precipitation Trend in Southeastern South America. Geophysical Research Letters, 2022, 49, .	4.0	3
83	Drivers of Coral Reconstructed Salinity in the South China Sea and Maritime Continent: The Influence of the 1976 Indoâ€Pacific Climate Shift. Journal of Geophysical Research: Oceans, 2022, 127, .	2.6	2
84	Changing hydroclimate dynamics and the 19th to 20th century wetting trend in the English Channel region of northwest Europe. Climate Dynamics, 2022, 58, 1539-1553.	3.8	0