Kerry Emanuel

List of Publications by Year in descending order

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86 papers	17,819 citations	41627 51 h-index	58552 86 g-index
89 all docs	89 docs citations	89 times ranked	13199 citing authors

#	Article	IF	Citations
1	Tropical cyclone climatology change greatly exacerbates US extreme rainfallâ€“surge hazard. Nature Climate Change, 2022, 12, 171-178.	8.1	77
2	Sensitivity of Linear Models of the Madden-Julian oscillationÂto Convective Representation. Journals of the Atmospheric Sciences, 2022, , .	0.6	4
3	Tropical Cyclone Seeds, Transition Probabilities, and Genesis. Journal of Climate, 2022, 35, 3557-3566.	1.2	16
4	On the Effect of Surface Friction and Upward Radiation of Energy on Equatorial Waves. Journals of the Atmospheric Sciences, 2022, 79, 837-857.	0.6	4
5	Poleward expansion of tropical cyclone latitudes in warming climates. Nature Geoscience, 2022, 15, 14-28.	5.4	63
6	Combined Modeling of US Fluvial, Pluvial, and Coastal Flood Hazard Under Current and Future Climates. Water Resources Research, 2021, 57, e2020WR028673.	1.7	137
7	Centennialâ€Scale Shifts in Storm Frequency Captured in Paleohurricane Records From The Bahamas Arise Predominantly From Random Variability. Geophysical Research Letters, 2021, 48, e2020GL091145.	1.5	20
8	Atlantic hurricane response to Saharan greening and reduced dust emissions during the mid-Holocene. Climate of the Past, 2021, 17, 675-701.	1.3	9
9	Elevated risk of tropical cyclone precipitation and pluvial flood in Houston under global warming. Environmental Research Letters, 2021, 16, 094030.	2.2	20
10	A Comparison of Tropical Cyclone Projections in a High-resolution Global Climate Model and from Downscaling by Statistical and Statistical-deterministic Methods. Journal of Climate, 2021, , 1-48.	1.2	6
11	A Weak Temperature Gradient Framework to Quantify the Causes of Potential Intensity Variability in the Tropics. Journal of Climate, 2021, 34, 8669-8682.	1.2	7
12	Double benefit of limiting global warming for tropical cyclone exposure. Nature Climate Change, 2021, 11, 861-866.	8.1	35
13	Response of Global Tropical Cyclone Activity to Increasing CO2: Results from Downscaling CMIP6 Models. Journal of Climate, 2021, 34, 57-70.	1.2	105
14	Nuclear fear: The irrational obstacle to real climate action. Bulletin of the Atomic Scientists, 2021, 77, 285-289.	0.2	2
15	Atlantic tropical cyclones downscaled from climate reanalyses show increasing activity over past 150 years. Nature Communications, 2021, 12, 7027.	5.8	39
16	Tropical Cyclones and Climate Change Assessment: Part II: Projected Response to Anthropogenic Warming. Bulletin of the American Meteorological Society, 2020, 101, E303-E322.	1.7	573
17	Projecting Exposure to Extreme Climate Impact Events Across Six Event Categories and Three Spatial Scales. Earth's Future, 2020, 8, e2020EF001616.	2.4	69
18	Observed Modulation of the Tropical Radiation Budget by Deep Convective Organization and Lowerâ€Tropospheric Stability. AGU Advances, 2020, 1, e2019AV000155.	2.3	31

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19	Evidence that hurricanes are getting stronger. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 13194-13195.	3.3	40
20	Modeling and Parameter Estimation of Hurricane Wind Fields with Asymmetry. Journal of Applied Meteorology and Climatology, 2020, 59, 687-705.	0.6	10
21	The Relevance of Theory for Contemporary Research in Atmospheres, Oceans, and Climate. AGU Advances, 2020, 1, e2019AV000129.	2.3	21
22	Slow Modes of the Equatorial Waveguide. Journals of the Atmospheric Sciences, 2020, 77, 1575-1582.	0.6	21
23	Forecasts of Hurricanes Using Large-Ensemble Outputs. Weather and Forecasting, 2020, 35, 1713-1731.	0.5	6
24	Climate change exacerbates hurricane flood hazards along US Atlantic and Gulf Coasts in spatially varying patterns. Nature Communications, 2019, 10, 3785.	5.8	231
25	Estimation of Atlantic Tropical Cyclone Rainfall Frequency in the United States. Journal of Applied Meteorology and Climatology, 2019, 58, 1853-1866.	0.6	32
26	Tropical Cyclones and Climate Change Assessment: Part I: Detection and Attribution. Bulletin of the American Meteorological Society, 2019, 100, 1987-2007.	1.7	326
27	Halving warming with idealized solar geoengineering moderates key climate hazards. Nature Climate Change, 2019, 9, 295-299.	8.1	139
28	Inferences from Simple Models of Slow, Convectively Coupled Processes. Journals of the Atmospheric Sciences, 2019, 76, 195-208.	0.6	30
29	Assessing Hurricane Rainfall Mechanisms Using a Physics-Based Model: Hurricanes Isabel (2003) and Irene (2011). Journals of the Atmospheric Sciences, 2018, 75, 2337-2358.	0.6	47
30	Highâ€Resolution Climate Projections for the Northeastern United States Using Dynamical Downscaling at Convectionâ€Permitting Scales. Earth and Space Science, 2018, 5, 801-826.	1.1	25
31	Intraseasonal Variability in a Cloud-Permitting Near-Global Equatorial Aquaplanet Model. Journals of the Atmospheric Sciences, 2018, 75, 4337-4355.	0.6	56
32	Broad threat to humanity from cumulative climate hazards intensified by greenhouse gas emissions. Nature Climate Change, 2018, 8, 1062-1071.	8.1	365
33	100 Years of Progress in Tropical Cyclone Research. Meteorological Monographs, 2018, 59, 15.1-15.68.	5.0	126
34	A Linear Response Framework for Radiativeâ€Convective Instability. Journal of Advances in Modeling Earth Systems, 2018, 10, 1924-1951.	1.3	12
35	Response of the North Pacific Tropical Cyclone Climatology to Global Warming: Application of Dynamical Downscaling to CMIP5 Models. Journal of Climate, 2017, 30, 1233-1243.	1.2	43
36	Will Global Warming Make Hurricane Forecasting More Difficult?. Bulletin of the American Meteorological Society, 2017, 98, 495-501.	1.7	131

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37	Convective Self-Aggregation in Numerical Simulations: A Review. Surveys in Geophysics, 2017, 38, 1173-1197.	2.1	167
38	Assessing the present and future probability of Hurricane Harveyâ€™s rainfall. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 12681-12684.	3.3	345
39	Impacts of hemispheric solar geoengineering on tropical cyclone frequency. Nature Communications, 2017, 8, 1382.	5.8	53
40	A fast intensity simulator for tropical cyclone risk analysis. Natural Hazards, 2017, 88, 779-796.	1.6	34
41	Convective Self-Aggregation in Numerical Simulations: A Review. Space Sciences Series of ISSI, 2017, , 1-25.	0.0	25
42	Assessing the impacts of 1.5â€Â°C global warming â€“ simulation protocol of the Inter-Sectoral Impact Model Intercomparison Project (ISIMIP2b). Geoscientific Model Development, 2017, 10, 4321-4345.	1.3	410
43	The Role of Inner-Core Moisture in Tropical Cyclone Predictability and Practical Forecast Skill. Journals of the Atmospheric Sciences, 2017, 74, 2315-2324.	0.6	57
44	On the Predictability and Error Sources of Tropical Cyclone Intensity Forecasts. Journals of the Atmospheric Sciences, 2016, 73, 3739-3747.	0.6	112
45	Grey swan tropical cyclones. Nature Climate Change, 2016, 6, 106-111.	8.1	136
46	Hurricanes and Climate: The U.S. CLIVAR Working Group on Hurricanes. Bulletin of the American Meteorological Society, 2015, 96, 997-1017.	1.7	158
47	Effect of Upper-Ocean Evolution on Projected Trends in Tropical Cyclone Activity. Journal of Climate, 2015, 28, 8165-8170.	1.2	41
48	Equilibrium Tropical Cyclone Size in an Idealized State of Axisymmetric Radiativeâ€“Convective Equilibrium*. Journals of the Atmospheric Sciences, 2014, 71, 1663-1680.	0.6	84
49	Radiativeâ€convective instability. Journal of Advances in Modeling Earth Systems, 2014, 6, 75-90.	1.3	143
50	Response of tropical sea surface temperature, precipitation, and tropical cycloneâ€related variables to changes in global and local forcing. Journal of Advances in Modeling Earth Systems, 2013, 5, 447-458.	1.3	77
51	Rotating radiativeâ€convective equilibrium simulated by a cloudâ€resolving model. Journal of Advances in Modeling Earth Systems, 2013, 5, 816-825.	1.3	121
52	Downscaling CMIP5 climate models shows increased tropical cyclone activity over the 21st century. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 12219-12224.	3.3	626
53	Influence of Tropical Tropopause Layer Cooling on Atlantic Hurricane Activity. Journal of Climate, 2013, 26, 2288-2301.	1.2	124
54	A Ventilation Index for Tropical Cyclones. Bulletin of the American Meteorological Society, 2012, 93, 1901-1912.	1.7	142

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55	Physically based assessment of hurricane surge threat under climate change. Nature Climate Change, 2012, 2, 462-467.	8.1	470
56	Potential Economic Value of Seasonal Hurricane Forecasts. Weather, Climate, and Society, 2012, 4, 110-117.	0.5	23
57	Sensitivity of Tropical Cyclone Intensity to Ventilation in an Axisymmetric Model. Journals of the Atmospheric Sciences, 2012, 69, 2394-2413.	0.6	102
58	Self-Stratification of Tropical Cyclone Outflow. Part II: Implications for Storm Intensification. Journals of the Atmospheric Sciences, 2012, 69, 988-996.	0.6	111
59	The impact of climate change on global tropical cyclone damage. Nature Climate Change, 2012, 2, 205-209.	8.1	526
60	Self-Stratification of Tropical Cyclone Outflow. Part I: Implications for Storm Structure. Journals of the Atmospheric Sciences, 2011, 68, 2236-2249.	0.6	203
61	Tropical cyclones and permanent El NiÃ±o in the early Pliocene epoch. Nature, 2010, 463, 1066-1070.	13.7	217
62	Tropical cyclones and climate change. Nature Geoscience, 2010, 3, 157-163.	5.4	2,533
63	On Estimating Hurricane Return Periods. Journal of Applied Meteorology and Climatology, 2010, 49, 837-844.	0.6	45
64	Midlevel Ventilationâ€™s Constraint on Tropical Cyclone Intensity. Journals of the Atmospheric Sciences, 2010, 67, 1817-1830.	0.6	254
65	Tropical Cyclone Activity Downscaled from NOAAâ€CIRES Reanalysis, 1908â€“1958. Journal of Advances in Modeling Earth Systems, 2010, 2, .	1.3	182
66	Comparison of Explicitly Simulated and Downscaled Tropical Cyclone Activity in a Highâ€Resolution Global Climate Model. Journal of Advances in Modeling Earth Systems, 2010, 2, .	1.3	25
67	Risk assessment of hurricane storm surge for New York City. Journal of Geophysical Research, 2010, 115, .	3.3	213
68	On the size distribution of Atlantic tropical cyclones. Geophysical Research Letters, 2009, 36, .	1.5	44
69	Assessing sedimentary records of paleohurricane activity using modeled hurricane climatology. Geochemistry, Geophysics, Geosystems, 2008, 9, .	1.0	52
70	Hurricanes and Global Warming: Results from Downscaling IPCC AR4 Simulations. Bulletin of the American Meteorological Society, 2008, 89, 347-368.	1.7	698
71	The Hurricaneâ€”Climate Connection. Bulletin of the American Meteorological Society, 2008, 89, ES10-ES20.	1.7	122
72	Environmental Factors Affecting Tropical Cyclone Power Dissipation. Journal of Climate, 2007, 20, 5497-5509.	1.2	263

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73	On the Role of Clouds and Moisture in Tropical Waves: A Two-Dimensional Model Study. Journals of the Atmospheric Sciences, 2006, 63, 2140-2155.	0.6	18
74	Supplement to A Statistical Deterministic Approach to Hurricane Risk Assessment. Bulletin of the American Meteorological Society, 2006, 87, S1-S5.	1.7	20
75	Climate and Tropical Cyclone Activity: A New Model Downscaling Approach. Journal of Climate, 2006, 19, 4797-4802.	1.2	130
76	A Statistical Deterministic Approach to Hurricane Risk Assessment. Bulletin of the American Meteorological Society, 2006, 87, 299-314.	1.7	411
77	Increasing destructiveness of tropical cyclones over the past 30â€‰years. Nature, 2005, 436, 686-688.	13.7	3,107
78	Tropical cyclone energetics and structure. , 2004, , 165-192.		80
79	Environmental Control of Tropical Cyclone Intensity. Journals of the Atmospheric Sciences, 2004, 61, 843-858.	0.6	474
80	TROPICALCYCLONES. Annual Review of Earth and Planetary Sciences, 2003, 31, 75-104.	4.6	502
81	Contribution of tropical cyclones to meridional heat transport by the oceans. Journal of Geophysical Research, 2001, 106, 14771-14781.	3.3	245
82	A Statistical Analysis of Tropical Cyclone Intensity. Monthly Weather Review, 2000, 128, 1139-1152.	0.5	245
83	Equilibrium atmospheres of a twoâ€column radiativeâ€convective model. Quarterly Journal of the Royal Meteorological Society, 1999, 125, 2239-2264.	1.0	58
84	Dissipative heating and hurricane intensity. Meteorology and Atmospheric Physics, 1998, 65, 233-240.	0.9	497
85	The Effect of Convective Response Time on WISHE Modes. Journals of the Atmospheric Sciences, 1993, 50, 1763-1776.	0.6	77
86	An Improved Model of the Equatorial Troposphere and Its Coupling with the Stratosphere. Journals of the Atmospheric Sciences, 1991, 48, 377-389.	0.6	137