Gerald A Meehl

List of Publications by Year
in descending order

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141 papers	51,055 citations	9234 74 h-index	10127 140 g-index
148 all docs	148 docs citations	148 times ranked	33524 citing authors

#	Article	IF	Citations
1	A modulation of the mechanism of the semiannual oscillation in the Southern Hemisphere. Tellus, Series A: Dynamic Meteorology and Oceanography, 2022, 50, 442.	0.8	39
2	The effects of bias, drift, and trends in calculating anomalies for evaluating skill of seasonal-to-decadal initialized climate predictions. Climate Dynamics, 2022, 59, 3373-3389.	1.7	8
3	Atlantic and Pacific tropics connected by mutually interactive decadal-timescale processes. Nature Geoscience, 2021, 14, 36-42.	5.4	76
4	Climate model projections from the Scenario Model Intercomparison ProjectÂ(ScenarioMIP) of CMIP6. Earth System Dynamics, 2021, 12, 253-293.	2.7	236
5	Shortened Duration of Global Warming Slowdowns with Elevated Greenhouse Gas Emissions. Journal of Meteorological Research, 2021, 35, 225-237.	0.9	8
6	Initialized Earth System prediction from subseasonal to decadal timescales. Nature Reviews Earth & Environment, 2021, 2, 340-357.	12.2	85
7	The role of interannual ENSO events in decadal timescale transitions of the Interdecadal Pacific Oscillation. Climate Dynamics, 2021, 57, 1933-1951.	1.7	16
8	The influence of variability in meridional over turning on global ocean circulation. Journal of Climate, 2021, , 1-53.	1.2	1
9	Tropical teleconnection impacts on Antarctic climate changes. Nature Reviews Earth & Environment, 2021, 2, 680-698.	12.2	85
10	Diverse impacts of Indian Ocean Dipole on El NiÃ±o-Southern Oscillation. Journal of Climate, 2021, , 1-46.	1.2	0
11	A Data Set for Intercomparing the Transient Behavior of Dynamical Modelâ€Based Subseasonal to Decadal Climate Predictions. Journal of Advances in Modeling Earth Systems, 2021, 13, e2021MS002570.	1.3	5
12	Decadal climate variability in the tropical Pacific: Characteristics, causes, predictability, and prospects. Science, 2021, 374, eaay9165.	6.0	92
13	The Role of Coupled Feedbacks in the Decadal Variability of the Southern Hemisphere Eddyâ€Driven Jet. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2021JD035023.	1.2	3
14	Quantifying Progress Across Different CMIP Phases With the ESMValTool. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2019JD032321.	1.2	50
15	Characteristics of Future Warmer Base States in CESM2. Earth and Space Science, 2020, 7, e2020EA001296.	1.1	14
16	A joint role for forced and internally-driven variability in the decadal modulation of global warming. Nature Communications, 2020, 11, 3827.	5.8	15
17	Role of Tropical Variability in Driving Decadal Shifts in the Southern Hemisphere Summertime Eddy-Driven Jet. Journal of Climate, 2020, 33, 5445-5463.	1.2	27
18	Context for interpreting equilibrium climate sensitivity and transient climate response from the CMIP6 Earth system models. Science Advances, 2020, 6, eaba1981.	4.7	321

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19	Intraseasonal, Seasonal, and Interannual Characteristics of Regional Monsoon Simulations in CESM2. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS001962.	1.3	17
20	Flash droughts present a new challenge for subseasonal-to-seasonal prediction. Nature Climate Change, 2020, 10, 191-199.	8.1	210
21	Progress in Simulating the Quasiâ€Biennial Oscillation in CMIP Models. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2019JD032362.	1.2	59
22	Substantial Increase in the Joint Occurrence and Human Exposure of Heatwave and Highâ€PM Hazards Over South Asia in the Midâ€21st Century. AGU Advances, 2020, 1, e2019AV000103.	2.3	31
23	Climate Change and Impacts on Variability and Interactions. , 2020, , 293-337.		0
24	Indian Ocean Warming Trend Reduces Pacific Warming Response to Anthropogenic Greenhouse Gases: An Interbasin Thermostat Mechanism. Geophysical Research Letters, 2019, 46, 10882-10890.	1.5	64
25	Effects of Model Resolution, Physics, and Coupling on Southern Hemisphere Storm Tracks in CESM1.3. Geophysical Research Letters, 2019, 46, 12408-12416.	1.5	39
26	Taking climate model evaluation to the next level. Nature Climate Change, 2019, 9, 102-110.	8.1	407
27	Sustained ocean changes contributed to sudden Antarctic sea ice retreat in late 2016. Nature Communications, 2019, 10, 14.	5.8	179
28	Future heat waves and surface ozone. Environmental Research Letters, 2018, 13, 064004.	2.2	50
29	Tropical Decadal Variability and the Rate of Arctic Sea Ice Decrease. Geophysical Research Letters, 2018, 45, 11,326.	1.5	51
30	Predicted Chance That Global Warming Will Temporarily Exceed 1.5ÂÂ°C. Geophysical Research Letters, 2018, 45, 11,895.	1.5	31
31	Predicting Near-Term Changes in the Earth System: A Large Ensemble of Initialized Decadal Prediction Simulations Using the Community Earth System Model. Bulletin of the American Meteorological Society, 2018, 99, 1867-1886.	1.7	166
32	Multi-Decadal Trend and Decadal Variability of the Regional Sea Level over the Indian Ocean since the 1960s: Roles of Climate Modes and External Forcing. Climate, 2018, 6, 51.	1.2	34
33	Extreme weather and climate events with ecological relevance: a review. Philosophical Transactions of the Royal Society B: Biological Sciences, 2017, 372, 20160135.	1.8	467
34	Decadal Variability of the Indian and Pacific Walker Cells since the 1960s: Do They Covary on Decadal Time Scales?. Journal of Climate, 2017, 30, 8447-8468.	1.2	33
35	Spatial and temporal agreement in climate model simulations of the Interdecadal Pacific Oscillation. Environmental Research Letters, 2017, 12, 044011.	2.2	65
36	A 2 Year Forecast for a 60â€“80% Chance of La NiÃ±a in 2017â€“2018. Geophysical Research Letters, 2017, 44, 11,624.	1.5	37

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37	The role of the Southern Hemisphere semiannual oscillation in the development of a precursor to central and eastern Pacific Southern Oscillation warm events. Geophysical Research Letters, 2017, 44, 6959-6965.	1.5	10
38	CMIP5 Scientific Gaps and Recommendations for CMIP6. Bulletin of the American Meteorological Society, 2017, 98, 95-105.	1.7	207
39	Spatial Patterns of Sea Level Variability Associated with Natural Internal Climate Modes. Surveys in Geophysics, 2017, 38, 217-250.	2.1	71
40	Towards improved and more routine Earth system model evaluation in CMIP. Earth System Dynamics, 2016, 7, 813-830.	2.7	74
41	The Scenario Model Intercomparison Project (ScenarioMIP) for CMIP6. Geoscientific Model Development, 2016, 9, 3461-3482.	1.3	2,084
42	Overview of the Coupled Model Intercomparison Project Phase 6 (CMIP6) experimental design and organization. Geoscientific Model Development, 2016, 9, 1937-1958.	1.3	5,303
43	The Decadal Climate Prediction Project (DCPP) contribution to CMIP6. Geoscientific Model Development, 2016, 9, 3751-3777.	1.3	282
44	Aspen Global Change Institute: 25 Years of Interdisciplinary Global Change Science. Bulletin of the American Meteorological Society, 2016, 97, 2027-2037.	1.7	0
45	Antarctic sea-ice expansion between 2000 and 2014 driven by tropical Pacific decadal climateÂvariability. Nature Geoscience, 2016, 9, 590-595.	5.4	218
46	Future changes in regional precipitation simulated by a halfâ€degree coupled climate model: Sensitivity to horizontal resolution. Journal of Advances in Modeling Earth Systems, 2016, 8, 863-884.	1.3	31
47	Contribution of the Interdecadal Pacific Oscillation to twentieth-century global surfaceÂtemperatureÂtrends. Nature Climate Change, 2016, 6, 1005-1008.	8.1	156
48	US daily temperature records past, present, and future. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 13977-13982.	3.3	32
49	Tropical Pacific SST Drivers of Recent Antarctic Sea Ice Trends. Journal of Climate, 2016, 29, 8931-8948.	1.2	82
50	Initialized decadal prediction for transition to positive phase of the Interdecadal Pacific Oscillation. Nature Communications, 2016, 7, 11718.	5.8	143
51	Making sense of the early-2000s warming slowdown. Nature Climate Change, 2016, 6, 224-228.	8.1	333
52	Impact of solar panels on global climate. Nature Climate Change, 2016, 6, 290-294.	8.1	91
53	How sensitive are the Pacificâ€“tropical North Atlantic teleconnections to the position and intensity of El NiÃ±o-related warming?. Climate Dynamics, 2016, 46, 1841-1860.	1.7	69
54	Effects of the Mount Pinatubo eruption on decadal climate prediction skill of Pacific sea surface temperatures. Geophysical Research Letters, 2015, 42, 10,840.	1.5	18

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55	Disappearance of the southeast U.S. â€œwarming holeâ€•with the late 1990s transition of the Interdecadal Pacific Oscillation. Geophysical Research Letters, 2015, 42, 5564-5570.	1.5	48
56	Early twentieth-century warming linked to tropical Pacific wind strength. Nature Geoscience, 2015, 8, 117-121.	5.4	56
57	Twentyâ€Five Years of Interdisciplinary Global Change Science. Eos, 2014, 95, 478-478.	0.1	1
58	Regional precipitation simulations for the midâ€•1970s shift and earlyâ€•2000s hiatus. Geophysical Research Letters, 2014, 41, 7658-7665.	1.5	30
59	Climate Model Intercomparisons: Preparing for the Next Phase. Eos, 2014, 95, 77-78.	0.1	129
60	CMIP5 Climate Model Analyses: Climate Extremes in the United States. Bulletin of the American Meteorological Society, 2014, 95, 571-583.	1.7	270
61	Decadal Climate Prediction: An Update from the Trenches. Bulletin of the American Meteorological Society, 2014, 95, 243-267.	1.7	454
62	Recent intensification of wind-driven circulation in the Pacific and the ongoing warming hiatus. Nature Climate Change, 2014, 4, 222-227.	8.1	1,115
63	Interactions between externally forced climate signals from sunspot peaks and the internally generated Pacific Decadal and North Atlantic Oscillations. Geophysical Research Letters, 2014, 41, 161-166.	1.5	20
64	Climate model simulations of the observed early-2000s hiatus of global warming. Nature Climate Change, 2014, 4, 898-902.	8.1	215
65	Intensification of decadal and multi-decadal sea level variability in the western tropical Pacific during recent decades. Climate Dynamics, 2014, 43, 1357-1379.	1.7	173
66	CMIP5 multiâ€•model hindcasts for the midâ€•1970s shift and early 2000s hiatus and predictions for 2016â€“2035. Geophysical Research Letters, 2014, 41, 1711-1716.	1.5	65
67	Externally Forced and Internally Generated Decadal Climate Variability Associated with the Interdecadal Pacific Oscillation. Journal of Climate, 2013, 26, 7298-7310.	1.2	405
68	Influence of Continental Ice Retreat on Future Global Climate. Journal of Climate, 2013, 26, 3087-3111.	1.2	22
69	A verification framework for interannual-to-decadal predictions experiments. Climate Dynamics, 2013, 40, 245-272.	1.7	254
70	Could a future â€œGrand Solar Minimumâ€•like the Maunder Minimum stop global warming?. Geophysical Research Letters, 2013, 40, 1789-1793.	1.5	39
71	Climate Change Projections in CESM1(CAM5) Compared to CCSM4. Journal of Climate, 2013, 26, 6287-6308.	1.2	243
72	Mechanisms Contributing to the Warming Hole and the Consequent U.S. Eastâ€“West Differential of Heat Extremes. Journal of Climate, 2012, 25, 6394-6408.	1.2	136

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73	Monsoon Regimes and Processes in CCSM4. Part I: The Asianâ€“Australian Monsoon. Journal of Climate, 2012, 25, 2583-2608.	1.2	57
74	The Indian summer monsoon during peaks in the 11 year sunspot cycle. Geophysical Research Letters, 2012, 39, .	1.5	20
75	Monsoon Regimes and Processes in CCSM4. Part II: African and American Monsoon Systems. Journal of Climate, 2012, 25, 2609-2621.	1.2	42
76	An Overview of CMIP5 and the Experiment Design. Bulletin of the American Meteorological Society, 2012, 93, 485-498.	1.7	11,443
77	The Pacificâ€Atlantic seesaw and the Bering Strait. Geophysical Research Letters, 2012, 39, .	1.5	39
78	Case studies for initialized decadal hindcasts and predictions for the Pacific region. Geophysical Research Letters, 2012, 39, .	1.5	56
79	Relating the strength of the tropospheric biennial oscillation (TBO) to the phase of the Interdecadal Pacific Oscillation (IPO). Geophysical Research Letters, 2012, 39, .	1.5	26
80	Climate System Response to External Forcings and Climate Change Projections in CCSM4. Journal of Climate, 2012, 25, 3661-3683.	1.2	241
81	The average influence of decadal solar forcing on the atmosphere in the South Pacific region. Geophysical Research Letters, 2011, 38, n/a-n/a.	1.5	16
82	Model-based evidence of deep-ocean heat uptake during surface-temperature hiatus periods. Nature Climate Change, 2011, 1, 360-364.	8.1	610
83	Decadal Variability of Asianâ€“Australian Monsoonâ€“ENSOâ€“TBO Relationships. Journal of Climate, 2011, 24, 4925-4940.	1.2	53
84	Improving Societal Outcomes of Extreme Weather in a Changing Climate: An Integrated Perspective. Annual Review of Environment and Resources, 2011, 36, 1-25.	5.6	172
85	The next generation of scenarios for climate change research and assessment. Nature, 2010, 463, 747-756.	13.7	5,299
86	Influence of Bering Strait flow and North Atlantic circulation on glacial sea-level changes. Nature Geoscience, 2010, 3, 118-121.	5.4	140
87	Patterns of Indian Ocean sea-level change in a warming climate. Nature Geoscience, 2010, 3, 546-550.	5.4	203
88	Decadal Prediction in the Pacific Region. Journal of Climate, 2010, 23, 2959-2973.	1.2	71
89	Climate engineering through artificial enhancement of natural forcings: Magnitudes and implied consequences. Journal of Geophysical Research, 2010, 115, .	3.3	29
90	SOLAR INFLUENCES ON CLIMATE. Reviews of Geophysics, 2010, 48, .	9.0	1,014

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91	Decadal Prediction. Bulletin of the American Meteorological Society, 2009, 90, 1467-1486.	1.7	662
92	A Unified Modeling Approach to Climate System Prediction. Bulletin of the American Meteorological Society, 2009, 90, 1819-1832.	1.7	140
93	A Lagged Warm Eventâ€“Like Response to Peaks in Solar Forcing in the Pacific Region. Journal of Climate, 2009, 22, 3647-3660.	1.2	69
94	Amplifying the Pacific Climate System Response to a Small 11-Year Solar Cycle Forcing. Science, 2009, 325, 1114-1118.	6.0	373
95	Transient response of the MOC and climate to potential melting of the Greenland Ice Sheet in the 21st century. Geophysical Research Letters, 2009, 36, .	1.5	93
96	Relative increase of record high maximum temperatures compared to record low minimum temperatures in the U.S.. Geophysical Research Letters, 2009, 36, .	1.5	281
97	Effect of the Atlantic hurricanes on the oceanic meridional overturning circulation and heat transport. Geophysical Research Letters, 2009, 36, .	1.5	30
98	The Mid-1970s Climate Shift in the Pacific and the Relative Roles of Forced versus Inherent Decadal Variability. Journal of Climate, 2009, 22, 780-792.	1.2	203
99	The response in the Pacific to the sun's decadal peaks and contrasts to cold events in the Southern Oscillation. Journal of Atmospheric and Solar-Terrestrial Physics, 2008, 70, 1046-1055.	0.6	64
100	A Coupled Airâ€“Sea Response Mechanism to Solar Forcing in the Pacific Region. Journal of Climate, 2008, 21, 2883-2897.	1.2	181
101	Response of Thermohaline Circulation to Freshwater Forcing under Present-Day and LGM Conditions. Journal of Climate, 2008, 21, 2239-2258.	1.2	70
102	Spatial patterns of probabilistic temperature change projections from a multivariate Bayesian analysis. Geophysical Research Letters, 2007, 34, .	1.5	56
103	THE WCRP CMIP3 Multimodel Dataset: A New Era in Climate Change Research. Bulletin of the American Meteorological Society, 2007, 88, 1383-1394.	1.7	2,484
104	Role of the Bering Strait in the thermohaline circulation and abrupt climate change. Geophysical Research Letters, 2007, 34, .	1.5	45
105	Coupled air-sea response to solar forcing in the Pacific region during northern winter. Journal of Geophysical Research, 2007, 112, .	3.3	147
106	Contributions of natural and anthropogenic forcing to changes in temperature extremes over the United States. Geophysical Research Letters, 2007, 34, .	1.5	89
107	Multi-model changes in El NiÃ±o teleconnections over North America in a future warmer climate. Climate Dynamics, 2007, 29, 779-790.	1.7	90
108	Interpretation of tropical thermocline cooling in the Indian and Pacific oceans during recent decades. Geophysical Research Letters, 2006, 33, .	1.5	45

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109	Spatiotemporal Structures and Mechanisms of the Tropospheric Biennial Oscillation in the Indo-Pacific Warm Ocean Regions*. Journal of Climate, 2006, 19, 3070-3087.	1.2	75
110	Megadroughts in the Indian Monsoon Region and Southwest North America and a Mechanism for Associated Multidecadal Pacific Sea Surface Temperature Anomalies. Journal of Climate, 2006, 19, 1605-1623.	1.2	237
111	Going to the Extremes. Climatic Change, 2006, 79, 185-211.	1.7	966
112	Climate Change Projections for the Twenty-First Century and Climate Change Commitment in the CCSM3. Journal of Climate, 2006, 19, 2597-2616.	1.2	239
113	Monsoon Regimes in the CCSM3. Journal of Climate, 2006, 19, 2482-2495.	1.2	79
114	Contributions of External Forcings to Southern Annular Mode Trends. Journal of Climate, 2006, 19, 2896-2905.	1.2	441
115	Bering Strait throughflow and the thermohaline circulation. Geophysical Research Letters, 2005, 32, .	1.5	32
116	Reasons for a fresher northern North Atlantic in the late 20th century. Geophysical Research Letters, 2005, 32, .	1.5	5
117	More Intense, More Frequent, and Longer Lasting Heat Waves in the 21st Century. Science, 2004, 305, 994-997.	6.0	3,162
118	Combinations of Natural and Anthropogenic Forcings in Twentieth-Century Climate. Journal of Climate, 2004, 17, 3721-3727.	1.2	248
119	Changes in frost days in simulations of twentyfirst century climate. Climate Dynamics, 2004, 23, 495-511.	1.7	94
120	A decadal solar effect in the tropics in Julyâ€“August. Journal of Atmospheric and Solar-Terrestrial Physics, 2004, 66, 1767-1778.	0.6	98
121	Detecting thermohaline circulation changes from ocean properties in a coupled model. Geophysical Research Letters, 2004, 31, n/a-n/a.	1.5	21
122	The Southern Oscillation in the Early 1990s. Geophysical Research Letters, 2003, 30, .	1.5	13
123	A monthly and latitudinally varying volcanic forcing dataset in simulations of 20th century climate. Geophysical Research Letters, 2003, 30, .	1.5	296
124	Contributions of Anthropogenic and Natural Forcing to Recent Tropopause Height Changes. Science, 2003, 301, 479-483.	6.0	379
125	The Asian Monsoon, the Tropospheric Biennial Oscillation, and the Indian Ocean Zonal Mode in the NCAR CSM*. Journal of Climate, 2003, 16, 1617-1642.	1.2	121
126	Coupled Oceanâ€“Atmosphere Dynamical Processes in the Tropical Indian and Pacific Oceans and the TBO. Journal of Climate, 2003, 16, 2138-2158.	1.2	123

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127	Solar and Greenhouse Gas Forcing and Climate Response in the Twentieth Century. Journal of Climate, 2003, 16, 426-444.	1.2	243
128	Indian Monsoon GCM Sensitivity Experiments Testing Tropospheric Biennial Oscillation Transition Conditions. Journal of Climate, 2002, 15, 923-944.	1.2	76
129	The Tropospheric Biennial Oscillation and Asianâ€“Australian Monsoon Rainfall. Journal of Climate, 2002, 15, 722-744.	1.2	177
130	A conceptual framework for time and space scale interactions in the climate system. Climate Dynamics, 2001, 17, 753-775.	1.7	47
131	The Coupled Model Intercomparison Project (CMIP). Bulletin of the American Meteorological Society, 2000, 81, 313-318.	1.7	381
132	Parallel climate model (PCM) control and transient simulations. Climate Dynamics, 2000, 16, 755-774.	1.7	578
133	The South Asian Monsoon and the Tropospheric Biennial Oscillation. Journal of Climate, 1997, 10, 1921-1943.	1.2	279
134	Intercomparison makes for a better climate model. Eos, 1997, 78, 445.	0.1	81
135	Intercomparsion of regional biases and doubled CO 2 -sensitivity of coupled atmosphere-ocean general circulation model experiments. Climate Dynamics, 1997, 14, 1-15.	1.7	72
136	El NiÃ±o-like climate change in a model with increased atmospheric CO2 concentrations. Nature, 1996, 382, 56-60.	13.7	347
137	Coupled Land-Ocean-Atmosphere Processes and South Asian Monsoon Variability. Science, 1994, 266, 263-267.	6.0	203
138	A Reexamination of the Mechanism of the Semiannual Oscillation in the Southern Hemisphere. Journal of Climate, 1991, 4, 911-926.	1.2	94
139	Climate sensitivity due to increased CO2: experiments with a coupled atmosphere and ocean general circulation model. Climate Dynamics, 1989, 4, 1-38.	1.7	287
140	The Annual Cycle and Interannual Variability in the Tropical Pacific and Indian Ocean Regions. Monthly Weather Review, 1987, 115, 27-50.	0.5	504
141	Seasonal cycle experiment on the climate sensitivity due to a doubling of CO₂ with an atmospheric general circulation model coupled to a simple mixedâ€layer ocean model. Journal of Geophysical Research, 1984, 89, 9475-9503.	3.3	360