Andrew T Wittenberg

List of Publications by Year
in descending order

125	19,638	18482 62	15732 125
papers	citations	h-index	g-index

135	135	135	13204
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	GFDL's CM2 Global Coupled Climate Models. Part I: Formulation and Simulation Characteristics. Journal of Climate, 2006, 19, 643-674.	3.2	1,431
2	The impact of global warming on the tropical Pacific Ocean and El NiÃ±o. Nature Geoscience, 2010, 3, 391-397.	12.9	1,029
3	GFDLâ€™s ESM2 Global Coupled Climateâ€“Carbon Earth System Models. Part I: Physical Formulation and Baseline Simulation Characteristics. Journal of Climate, 2012, 25, 6646-6665.	3.2	972
4	Global Warming Pattern Formation: Sea Surface Temperature and Rainfall*. Journal of Climate, 2010, 23, 966-986.	3.2	915
5	Weakening of tropical Pacific atmospheric circulation due to anthropogenic forcing. Nature, 2006, 441, 73-76.	27.8	894
6	The Dynamical Core, Physical Parameterizations, and Basic Simulation Characteristics of the Atmospheric Component AM3 of the GFDL Global Coupled Model CM3. Journal of Climate, 2011, 24, 3484-3519.	3.2	887
7	The New GFDL Global Atmosphere and Land Model AM2â€“LM2: Evaluation with Prescribed SST Simulations. Journal of Climate, 2004, 17, 4641-4673.	3.2	756
8	Understanding ENSO Diversity. Bulletin of the American Meteorological Society, 2015, 96, 921-938.	3.3	745
9	El NiÃ±oâ€“Southern Oscillation complexity. Nature, 2018, 559, 535-545.	27.8	702
10	GFDLâ€™s ESM2 Global Coupled Climateâ€“Carbon Earth System Models. Part II: Carbon System Formulation and Baseline Simulation Characteristics*. Journal of Climate, 2013, 26, 2247-2267.	3.2	540
11	Understanding El NiÃ±o in Oceanâ€“Atmosphere General Circulation Models: Progress and Challenges. Bulletin of the American Meteorological Society, 2009, 90, 325-340.	3.3	455
12	Simulated Climate and Climate Change in the GFDL CM2.5 High-Resolution Coupled Climate Model. Journal of Climate, 2012, 25, 2755-2781.	3.2	454
13	Are historical records sufficient to constrain ENSO simulations?. Geophysical Research Letters, 2009, 36, .	4.0	425
14	On the Seasonal Forecasting of Regional Tropical Cyclone Activity. Journal of Climate, 2014, 27, 7994-8016.	3.2	340
15	System Design and Evaluation of Coupled Ensemble Data Assimilation for Global Oceanic Climate Studies. Monthly Weather Review, 2007, 135, 3541-3564.	1.4	331
16	GFDL's CM2 Global Coupled Climate Models. Part III: Tropical Pacific Climate and ENSO. Journal of Climate, 2006, 19, 698-722.	3.2	322
17	Impacts on Ocean Heat from Transient Mesoscale Eddies in a Hierarchy of Climate Models. Journal of Climate, 2015, 28, 952-977.	3.2	292
18	The GFDL CM3 Coupled Climate Model: Characteristics of the Ocean and Sea Ice Simulations. Journal of Climate, 2011, 24, 3520-3544.	3.2	288

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19	The GFDL Earth System Model Version 4.1 (GFDLâ€ESM 4.1): Overall Coupled Model Description and Simulation Characteristics. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS002015.	3.8	277
20	GFDL's CM2 Global Coupled Climate Models. Part II: The Baseline Ocean Simulation. Journal of Climate, 2006, 19, 675-697.	3.2	269
21	Observing and Predicting the 2015/16 El NiÃ±o. Bulletin of the American Meteorological Society, 2017, 98, 1363-1382.	3.3	253
22	Structure and Performance of GFDL's CM4.0 Climate Model. Journal of Advances in Modeling Earth Systems, 2019, 11, 3691-3727.	3.8	242
23	Explaining Extreme Events of 2012 from a Climate Perspective. Bulletin of the American Meteorological Society, 2013, 94, S1-S74.	3.3	229
24	Climate Phenomena and their Relevance for Future Regional Climate Change. , 2014, , 1217-1308.		202
25	On the externalization of sound images. Journal of the Acoustical Society of America, 1996, 99, 3678-3688.	1.1	196
26	The GFDL Global Ocean and Sea Ice Model OM4.0: Model Description and Simulation Features. Journal of Advances in Modeling Earth Systems, 2019, 11, 3167-3211.	3.8	195
27	Warm Pool and Cold Tongue El NiÃ±o Events as Simulated by the GFDL 2.1 Coupled GCM. Journal of Climate, 2010, 23, 1226-1239.	3.2	189
28	The GFDL Global Atmosphere and Land Model AM4.0/LM4.0: 2. Model Description, Sensitivity Studies, and Tuning Strategies. Journal of Advances in Modeling Earth Systems, 2018, 10, 735-769.	3.8	185
29	Volcanic signals in oceans. Journal of Geophysical Research, 2009, 114, .	3.3	181
30	Simulation and Prediction of Category 4 and 5 Hurricanes in the High-Resolution GFDL HiFLOR Coupled Climate Model*. Journal of Climate, 2015, 28, 9058-9079.	3.2	181
31	Explaining Extreme Events of 2013 from a Climate Perspective. Bulletin of the American Meteorological Society, 2014, 95, S1-S104.	3.3	180
32	How Predictable is El NiÃ±o?. Bulletin of the American Meteorological Society, 2003, 84, 911-920.	3.3	174
33	Revisiting ENSO/Indian Ocean Dipole phase relationships. Geophysical Research Letters, 2017, 44, 2481-2492.	4.0	168
34	Modulation of Westerly Wind Bursts by Sea Surface Temperature: A Semistochastic Feedback for ENSO. Journals of the Atmospheric Sciences, 2007, 64, 3281-3295.	1.7	167
35	Estimating Central Equatorial Pacific SST Variability over the Past Millennium. Part II: Reconstructions and Implications. Journal of Climate, 2013, 26, 2329-2352.	3.2	167
36	Spatial and temporal structure of Tropical Pacific interannual variability in 20th century coupled simulations. Ocean Modelling, 2006, 15, 274-298.	2.4	162

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37	The GFDL Global Atmosphere and Land Model AM4.0/LM4.0: 1. Simulation Characteristics With Prescribed SSTs. Journal of Advances in Modeling Earth Systems, 2018, 10, 691-734.	3.8	155
38	El NiÃ±o and our future climate: where do we stand?. Wiley Interdisciplinary Reviews: Climate Change, 2010, 1, 260-270.	8.1	152
39	Multimodel Assessment of Regional Surface Temperature Trends: CMIP3 and CMIP5 Twentieth-Century Simulations. Journal of Climate, 2013, 26, 8709-8743.	3.2	149
40	Improved Seasonal Prediction of Temperature and Precipitation over Land in a High-Resolution GFDL Climate Model. Journal of Climate, 2015, 28, 2044-2062.	3.2	141
41	ENSO Modulation: Is It Decadally Predictable?. Journal of Climate, 2014, 27, 2667-2681.	3.2	126
42	Unraveling El NiÃ±o's impact on the East Asian Monsoon and Yangtze River summer flooding. Geophysical Research Letters, 2016, 43, 11,375.	4.0	125
43	ENSO Transition, Duration, and Amplitude Asymmetries: Role of the Nonlinear Wind Stress Coupling in a Conceptual Model. Journal of Climate, 2013, 26, 9462-9476.	3.2	124
44	Tropical cyclone sensitivities to CO2 doubling: roles of atmospheric resolution, synoptic variability and background climate changes. Climate Dynamics, 2019, 53, 5999-6033.	3.8	114
45	Tropical Atlantic biases and their relation to surface wind stress and terrestrial precipitation. Climate Dynamics, 2012, 38, 985-1001.	3.8	111
46	Mean Climate Controls on the Simulated Response of ENSO to Increasing Greenhouse Gases. Journal of Climate, 2012, 25, 7399-7420.	3.2	110
47	A Predictable AMO-Like Pattern in the GFDL Fully Coupled Ensemble Initialization and Decadal Forecasting System. Journal of Climate, 2013, 26, 650-661.	3.2	97
48	SPEAR: The Next Generation GFDL Modeling System for Seasonal to Multidecadal Prediction and Projection. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS001895.	3.8	94
49	ENSO in the CMIP5 Simulations: Life Cycles, Diversity, and Responses to Climate Change. Journal of Climate, 2017, 30, 775-801.	3.2	93
50	Evaluating Climate Models with the CLIVAR 2020 ENSO Metrics Package. Bulletin of the American Meteorological Society, 2021, 102, E193-E217.	3.3	93
51	Decadal climate variability in the tropical Pacific: Characteristics, causes, predictability, and prospects. Science, 2021, 374, eaay9165.	12.6	92
52	A Link between the Hiatus in Global Warming and North American Drought. Journal of Climate, 2015, 28, 3834-3845.	3.2	91
53	Climate Variability and Radiocarbon in the CM2Mc Earth System Model. Journal of Climate, 2011, 24, 4230-4254.	3.2	88
54	Predicting a Decadal Shift in North Atlantic Climate Variability Using the GFDL Forecast System. Journal of Climate, 2014, 27, 6472-6496.	3.2	84

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55	Estimating Central Equatorial Pacific SST Variability over the Past Millennium. Part I: Methodology and Validation. Journal of Climate, 2013, 26, 2302-2328.	3.2	79
56	Dominant Role of Subtropical Pacific Warming in Extreme Eastern Pacific Hurricane Seasons: 2015 and the Future. Journal of Climate, 2017, 30, 243-264.	3.2	79
57	Impacts of a Pinatuboâ€size volcanic eruption on ENSO. Journal of Geophysical Research D: Atmospheres, 2017, 122, 925-947.	3.3	76
58	Interdecadal Amplitude Modulation of El NiÃ±oâ€“Southern Oscillation and Its Impact on Tropical Pacific Decadal Variability*. Journal of Climate, 2013, 26, 7280-7297.	3.2	75
59	Inferred changes in El NiÃ±oâ€“Southern Oscillation variance over the past six centuries. Climate of the Past, 2013, 9, 2269-2284.	3.4	75
60	Seasonal Predictability of Extratropical Storm Tracks in GFDLâ€™s High-Resolution Climate Prediction Model. Journal of Climate, 2015, 28, 3592-3611.	3.2	71
61	Tropical Pacific impacts of convective momentum transport in the SNU coupled GCM. Climate Dynamics, 2008, 31, 213-226.	3.8	70
62	Improved Simulation of Tropical Cyclone Responses to ENSO in the Western North Pacific in the High-Resolution GFDL HiFLOR Coupled Climate Model*. Journal of Climate, 2016, 29, 1391-1415.	3.2	69
63	Uncertainty in the ENSO amplitude change from the past to the future. Geophysical Research Letters, 2012, 39, .	4.0	64
64	Initialization of an ENSO Forecast System Using a Parallelized Ensemble Filter. Monthly Weather Review, 2005, 133, 3176-3201.	1.4	62
65	Multiyear Predictions of North Atlantic Hurricane Frequency: Promise and Limitations. Journal of Climate, 2013, 26, 5337-5357.	3.2	57
66	Spring persistence, transition, and resurgence of El NiÃ±o. Geophysical Research Letters, 2014, 41, 8578-8585.	4.0	57
67	US regional tornado outbreaks and their links to spring ENSO phases and North Atlantic SST variability. Environmental Research Letters, 2016, 11, 044008.	5.2	56
68	On the Fragile Relationship Between El NiÃ±o and California Rainfall. Geophysical Research Letters, 2018, 45, 907-915.	4.0	56
69	Reassessing the role of stochastic forcing in the 1997-1998 El NiÃ±o. Geophysical Research Letters, 2006, 33, n/a-n/a.	4.0	54
70	The Seasonality of the Great Plains Low-Level Jet and ENSO Relationship. Journal of Climate, 2015, 28, 4525-4544.	3.2	54
71	Effectiveness of the Bjerknes stability index in representing ocean dynamics. Climate Dynamics, 2014, 43, 2399-2414.	3.8	52
72	Skillful Climate Forecasts of the Tropical Indo-Pacific Ocean Using Model-Analogs. Journal of Climate, 2018, 31, 5437-5459.	3.2	52

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73	Extended Wind Stress Analyses for ENSO. Journal of Climate, 2004, 17, 2526-2540.	3.2	50
74	The Extreme 2015/16 El NiÃ±o, in the Context of Historical Climate Variability and Change. Bulletin of the American Meteorological Society, 2018, 99, S16-S20.	3.3	50
75	Impact of Strong ENSO on Regional Tropical Cyclone Activity in a High-Resolution Climate Model in the North Pacific and North Atlantic Oceans. Journal of Climate, 2016, 29, 2375-2394.	3.2	40
76	Regional impacts of ocean color on tropical Pacific variability. Ocean Science, 2009, 5, 313-327.	3.4	37
77	Sensitivity of Hybrid ENSO Models to Unresolved Atmospheric Variability. Journal of Climate, 2008, 21, 3704-3721.	3.2	36
78	Diagnosing Secular Variations in Retrospective ENSO Seasonal Forecast Skill Using CMIP5 Modelâ€Analogs. Geophysical Research Letters, 2019, 46, 1721-1730.	4.0	36
79	New Strategies for Evaluating ENSO Processes in Climate Models. Bulletin of the American Meteorological Society, 2012, 93, 235-238.	3.3	35
80	Correlation study of time-varying multivariate climate data sets. , 2009, , .		33
81	Nonlinear Zonal Wind Response to ENSO in the CMIP5 Models: Roles of the Zonal and Meridional Shift of the ITCZ/SPCZ and the Simulated Climatological Precipitation*. Journal of Climate, 2015, 28, 8556-8573.	3.2	33
82	Precipitation Sensitivity to Local Variations in Tropical Sea Surface Temperature. Journal of Climate, 2018, 31, 9225-9238.	3.2	31
83	Intrinsic modulation of ENSO predictability viewed through a local Lyapunov lens. Climate Dynamics, 2014, 42, 253-270.	3.8	29
84	Understanding the double peaked El NiÃ±o in coupled GCMs. Climate Dynamics, 2017, 48, 2045-2063.	3.8	28
85	CMIP5 Model-based Assessment of Anthropogenic Influence on Record Global Warmth During 2016. Bulletin of the American Meteorological Society, 2018, 99, S11-S15.	3.3	27
86	Comparison and Sensitivity of ODASI Ocean Analyses in the Tropical Pacific. Monthly Weather Review, 2007, 135, 2242-2264.	1.4	26
87	Static correlation visualization for large time-varying volume data. , 2011, , .		26
88	El NiÃ±o/Southern Oscillation response to low-latitude volcanic eruptions depends on ocean pre-conditions and eruption timing. Communications Earth & Environment, 2020, 1, .	6.8	26
89	A method for disentangling El NiÃ±oâ€“mean state interaction. Geophysical Research Letters, 2012, 39, .	4.0	24
90	Characterizing unforced multi-decadal variability of ENSO: a case study with the GFDL CM2.1 coupled GCM. Climate Dynamics, 2017, 49, 2845-2862.	3.8	24

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91	Understanding Diverse Model Projections of Future Extreme El NiÃ±o. Journal of Climate, 2021, 34, 449-464.	3.2	24
92	Projections of faster onset and slower decay of El NiÃ±o in the 21st century. Nature Communications, 2022, 13, 1915.	12.8	22
93	Robust Evaluation of ENSO in Climate Models: How Many Ensemble Members Are Needed?. Geophysical Research Letters, 2021, 48, e2021GL095041.	4.0	21
94	Response of the Equatorial Pacific Seasonal Cycle to Orbital Forcing. Journal of Climate, 2015, 28, 9258-9276.	3.2	20
95	Fourth CLIVAR Workshop on the Evaluation of ENSO Processes in Climate Models: ENSO in a Changing Climate. Bulletin of the American Meteorological Society, 2016, 97, 817-820.	3.3	20
96	Improved Simulations of Tropical Pacific Annualâ€Mean Climate in the GFDL FLOR and HiFLOR Coupled GCMs. Journal of Advances in Modeling Earth Systems, 2018, 10, 3176-3220.	3.8	20
97	Seasonal Prediction and Predictability of Regional Antarctic Sea Ice. Journal of Climate, 2021, 34, 6207-6233.	3.2	20
98	A re-appraisal of the ENSO response to volcanism with paleoclimate data assimilation. Nature Communications, 2022, 13, 747.	12.8	17
99	Understanding the Equatorial Pacific Cold Tongue Time-Mean Heat Budget. Part I: Diagnostic Framework. Journal of Climate, 2018, 31, 9965-9985.	3.2	16
100	Relating CMIP5 Model Biases to Seasonal Forecast Skill in the Tropical Pacific. Geophysical Research Letters, 2020, 47, e2019GL086765.	4.0	14
101	The Impact of Sea Surface Temperature Biases on North American Precipitation in a High-Resolution Climate Model. Journal of Climate, 2020, 33, 2427-2447.	3.2	14
102	Impact of Mountains on Tropical Circulation in Two Earth System Models. Journal of Climate, 2017, 30, 4149-4163.	3.2	13
103	Multiple time level adjustment for data assimilation. Tellus, Series A: Dynamic Meteorology and Oceanography, 2004, 56, 2-15.	1.7	12
104	Reassessing Conceptual Models of ENSO. Journal of Climate, 2015, 28, 9121-9142.	3.2	11
105	Understanding the Equatorial Pacific Cold Tongue Time-Mean Heat Budget. Part II: Evaluation of the GFDL-FLOR Coupled GCM. Journal of Climate, 2018, 31, 9987-10011.	3.2	11
106	Dynamical implications of prescribing part of a coupled system: Results from a low-order model. Nonlinear Processes in Geophysics, 1998, 5, 167-179.	1.3	10
107	ENSO Dynamics in the E3SM-1-0, CESM2, and GFDL-CM4 Climate Models. Journal of Climate, 2021, , 1-59.	3.2	10
108	Multiple time level adjustment for data assimilation. Tellus, Series A: Dynamic Meteorology and Oceanography, 2004, 56, 2-15.	1.7	9

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109	Are Multiseasonal Forecasts of Atmospheric Rivers Possible?. Geophysical Research Letters, 2021, 48, e2021GL094000.	4.0	8
110	Seasonal predictability of baroclinic wave activity. Npj Climate and Atmospheric Science, 2021, 4, .	6.8	8
111	Seasonal-to-Decadal Variability and Prediction of the Kuroshio Extension in the GFDL Coupled Ensemble Reanalysis and Forecasting System. Journal of Climate, 2022, 35, 3515-3535.	3.2	8
112	Variability of fire emissions on interannual to multi-decadal timescales in two Earth System models. Environmental Research Letters, 2016, 11, 125008.	5.2	7
113	Multimodel Assessment of Anthropogenic Influence on Record Global and Regional Warmth During 2015. Bulletin of the American Meteorological Society, 2016, 97, S4-S8.	3.3	7
114	Mechanisms of Regional Arctic Sea Ice Predictability in Two Dynamical Seasonal Forecast Systems. Journal of Climate, 2022, 35, 4207-4231.	3.2	6
115	Skillful Seasonal Prediction of North American Summertime Heat Extremes. Journal of Climate, 2022, 35, 4331-4345.	3.2	6
116	A Seasonal Probabilistic Outlook for Tornadoes (SPOTter) in the Contiguous United States Based on the Leading Patterns of Large-Scale Atmospheric Anomalies. Monthly Weather Review, 2021, 149, 901-919.	1.4	5
117	When Will Humanity Notice Its Influence on Atmospheric Rivers?. Journal of Geophysical Research D: Atmospheres, 2022, 127, .	3.3	5
118	Assessment of summer rainfall forecast skill in the Intra-Americas in GFDL high and low-resolution models. Climate Dynamics, 2019, 52, 1965-1982.	3.8	4
119	Record Annual Mean Warmth Over Europe, the Northeast Pacific, and the Northwest Atlantic During 2014: Assessment of Anthropogenic Influence. Bulletin of the American Meteorological Society, 2015, 96, S61-S65.	3.3	3
120	CMIP5 Model-based Assessment of Anthropogenic Influence on Highly Anomalous Arctic Warmth During Novemberâ€“December 2016. Bulletin of the American Meteorological Society, 2018, 99, S34-S38.	3.3	3
121	Dynamical Seasonal Predictions of Tropical Cyclone Activity: Roles of Sea Surface Temperature Errors and Atmosphereâ€“Land Initialization. Journal of Climate, 2021, 34, 1743-1766.	3.2	3
122	Roles of Meridional Overturning in Subpolar Southern Ocean SST Trends: Insights from Ensemble Simulations. Journal of Climate, 2022, 35, 1577-1596.	3.2	3
123	Reply to Comments on â€œMultiyear Predictions of North Atlantic Hurricane Frequency: Promise and Limitationsâ€• Journal of Climate, 2014, 27, 490-492.	3.2	2
124	Recent Research at GFDL on Surface Temperature Trends and Simulations of Tropical Cyclone Activity in the Indian Ocean Region. , 2014, , 50-62.		2
125	Record Annual Mean Warmth Over Europe, the Northeast Pacific, and the Northwest Atlantic During 2014: Assessment of Anthropogenic Influence. Bulletin of the American Meteorological Society, 2015, 96, S61-S65.	3.3	0