R T Sutton

List of Publications by Year
in descending order

135 papers	14,612 citations	26567 56 h-index	19690 117 g-index
165 all docs	165 docs citations	165 times ranked	11049 citing authors

#	Article	IF	Citations
1	The Potential to Narrow Uncertainty in Regional Climate Predictions. Bulletin of the American Meteorological Society, 2009, 90, 1095-1108.	1.7	1,936
2	Atlantic Ocean Forcing of North American and European Summer Climate. Science, 2005, 309, 115-118.	6.0	1,148
3	The potential to narrow uncertainty in projections of regional precipitation change. Climate Dynamics, 2011, 37, 407-418.	1.7	784
4	Atmospheric GCM Response to Extratropical SST Anomalies: Synthesis and Evaluation*. Journal of Climate, 2002, 15, 2233-2256.	1.2	580
5	Decadal Climate Prediction: An Update from the Trenches. Bulletin of the American Meteorological Society, 2014, 95, 243-267.	1.7	454
6	Time of emergence of climate signals. Geophysical Research Letters, 2012, 39, .	1.5	375
7	Atlantic Ocean influence on a shift in European climate in the 1990s. Nature Geoscience, 2012, 5, 788-792.	5.4	370
8	Decadal predictability of North Atlantic sea surface temperature and climate. Nature, 1997, 388, 563-567.	13.7	355
9	Land/sea warming ratio in response to climate change: IPCC AR4 model results and comparison with observations. Geophysical Research Letters, 2007, 34, .	1.5	339
10	A Review of the Role of the Atlantic Meridional Overturning Circulation in Atlantic Multidecadal Variability and Associated Climate Impacts. Reviews of Geophysics, 2019, 57, 316-375.	9.0	298
11	The Influence of a Weakening of the Atlantic Meridional Overturning Circulation on ENSO. Journal of Climate, 2007, 20, 4899-4919.	1.2	282
12	Have Aerosols Caused the Observed Atlantic Multidecadal Variability?. Journals of the Atmospheric Sciences, 2013, 70, 1135-1144.	0.6	282
13	Climate Response to Basin-Scale Warming and Cooling of the North Atlantic Ocean. Journal of Climate, 2007, 20, 891-907.	1.2	254
14	A verification framework for interannual-to-decadal predictions experiments. Climate Dynamics, 2013, 40, 245-272.	1.7	254
15	Multidecadal modulation of El NiÃ±oâ€“Southern Oscillation (ENSO) variance by Atlantic Ocean sea surface temperatures. Geophysical Research Letters, 2006, 33, .	1.5	236
16	A review of climate risk information for adaptation and development planning. International Journal of Climatology, 2009, 29, 1193-1215.	1.5	231
17	Causes of the Rapid Warming of the North Atlantic Ocean in the Mid-1990s. Journal of Climate, 2012, 25, 4116-4134.	1.2	226
18	Dominant role of greenhouse-gas forcing in the recovery of Sahel rainfall. Nature Climate Change, 2015, 5, 757-760.	8.1	183

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19	A reversal of climatic trends in the North Atlantic since 2005. Nature Geoscience, 2016, 9, 513-517.	5.4	174
20	Mechanism of Interdecadal Thermohaline Circulation Variability in a Coupled Oceanâ€“Atmosphere GCM. Journal of Climate, 2005, 18, 1117-1135.	1.2	164
21	The Elements of Climate Variability in the Tropical Atlantic Region. Journal of Climate, 2000, 13, 3261-3284.	1.2	163
22	Interannual to Decadal Climate Predictability in the North Atlantic: A Multimodel-Ensemble Study. Journal of Climate, 2006, 19, 1195-1203.	1.2	161
23	The Atmospheric Response over the North Atlantic to Decadal Changes in Sea Surface Temperature. Journal of Climate, 1999, 12, 2562-2584.	1.2	160
24	A lagged response to the 11 year solar cycle in observed winter Atlantic/European weather patterns. Journal of Geophysical Research D: Atmospheres, 2013, 118, 13,405.	1.2	154
25	Influence of the Ocean on North Atlantic Climate Variability 1871â€“1999. Journal of Climate, 2003, 16, 3296-3313.	1.2	153
26	Past, Present, and Future Changes in the Atlantic Meridional Overturning Circulation. Bulletin of the American Meteorological Society, 2012, 93, 1663-1676.	1.7	153
27	Projections of when temperature change will exceed 2 Â°C above pre-industrial levels. Nature Climate Change, 2011, 1, 407-412.	8.1	151
28	Adjustment of the coupled ocean-atmosphere system to a sudden change in the Thermohaline Circulation. Geophysical Research Letters, 2002, 29, 18-1-18-4.	1.5	149
29	Comment on â€œThe Atlantic Multidecadal Oscillation without a role for ocean circulationâ€. Science, 2016, 352, 1527-1527.	6.0	136
30	Understanding Landâ€“Sea Warming Contrast in Response to Increasing Greenhouse Gases. Part I: Transient Adjustment. Journal of Climate, 2009, 22, 3079-3097.	1.2	132
31	Atlantic overturning in decline?. Nature Geoscience, 2014, 7, 2-3.	5.4	124
32	Enhancement of ENSO Variability by a Weakened Atlantic Thermohaline Circulation in a Coupled GCM. Journal of Climate, 2007, 20, 4920-4939.	1.2	103
33	Rapid descent of mesospheric air into the stratospheric polar vortex. Geophysical Research Letters, 1993, 20, 1267-1270.	1.5	100
34	Atlantic Climate Variability and Predictability: A CLIVAR Perspective. Journal of Climate, 2006, 19, 5100-5121.	1.2	99
35	Initialized decadal predictions of the rapid warming of the North Atlantic Ocean in the mid 1990s. Geophysical Research Letters, 2012, 39, .	1.5	91
36	Climate impacts of recent multidecadal changes in Atlantic Ocean Sea Surface Temperature: a multimodel comparison. Climate Dynamics, 2010, 34, 1041-1058.	1.7	90

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37	Variability of the North Atlantic summer storm track: mechanisms and impacts on European climate. Environmental Research Letters, 2013, 8, 034037.	2.2	89
38	Predictability of Winter Climate over the North Atlantic European Region during ENSO Events. Journal of Climate, 2004, 17, 1953-1974.	1.2	88
39	Understanding the rapid summer warming and changes in temperature extremes since the mid-1990s over Western Europe. Climate Dynamics, 2017, 48, 1537-1554.	1.7	86
40	The North Atlantic Oscillationâ€"What Role for the Ocean?. Atmospheric Science Letters, 2000, 1, 89-100.	0.8	85
41	Aerosolâ€Forced AMOC Changes in CMIP6 Historical Simulations. Geophysical Research Letters, 2020, 47, e2020GL088166.	1.5	85
42	Bjerknes Compensation and the Decadal Variability of the Energy Transports in a Coupled Climate Model. Journal of Climate, 2006, 19, 1167-1181.	1.2	84
43	Historical Simulations With HadGEM3â€GC3.1 for CMIP6. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS001995.	1.3	84
44	An Intercomparison of Skill and Overconfidence/Underconfidence of the Wintertime North Atlantic Oscillation in Multimodel Seasonal Forecasts. Geophysical Research Letters, 2018, 45, 7808-7817.	1.5	83
45	Exploring the impact of CMIP5 model biases on the simulation of North Atlantic decadal variability. Geophysical Research Letters, 2015, 42, 5926-5934.	1.5	80
46	Atlantic Multidecadal Variability and the U.K. ACSIS Program. Bulletin of the American Meteorological Society, 2018, 99, 415-425.	1.7	80
47	Observed Emergence of the Climate Change Signal: From the Familiar to the Unknown. Geophysical Research Letters, 2020, 47, e2019GL086259.	1.5	76
48	Climate Science Needs to Take Risk Assessment Much More Seriously. Bulletin of the American Meteorological Society, 2019, 100, 1637-1642.	1.7	72
49	Response of the atmosphereâ€“ocean mixed-layer system to anomalous ocean heat-flux convergence. Quarterly Journal of the Royal Meteorological Society, 2002, 128, 1259-1275.	1.0	64
50	Abrupt summer warming and changes in temperature extremes over Northeast Asia since the mid-1990s: Drivers and physical processes. Advances in Atmospheric Sciences, 2016, 33, 1005-1023.	1.9	64
51	Uncertainties in the timing of unprecedented climates. Nature, 2014, 511, E3-E5.	13.7	63
52	Recent trends in sea level pressure in the Indian Ocean region. Geophysical Research Letters, 2006, 33, .	1.5	62
53	Decadal Predictability of the Atlantic Ocean in a Coupled GCM: Forecast Skill and Optimal Perturbations Using Linear Inverse Modeling. Journal of Climate, 2009, 22, 3960-3978.	1.2	62
54	Impacts of recent decadal changes in Asian aerosols on the East Asian summer monsoon: roles of aerosolâ€“radiation and aerosolâ€“cloud interactions. Climate Dynamics, 2019, 53, 3235-3256.	1.7	62

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55	The impact of North Atlantic sea surface temperature errors on the simulation of North Atlantic European region climate. Quarterly Journal of the Royal Meteorological Society, 2012, 138, 1774-1783.	1.0	61
56	Connecting Climate Model Projections of Global Temperature Change with the Real World. Bulletin of the American Meteorological Society, 2016, 97, 963-980.	1.7	61
57	Detection and attribution of Atlantic salinity changes. Geophysical Research Letters, 2008, 35, .	1.5	59
58	The Importance of Wind and Buoyancy Forcing for the Boundary Density Variations and the Geostrophic Component of the AMOC at 26Â°N. Journal of Physical Oceanography, 2014, 44, 2387-2408.	0.7	56
59	Challenges and opportunities for improved understanding of regional climate dynamics. Nature Climate Change, 2018, 8, 101-108.	8.1	56
60	Predictable winter climate in the North Atlantic sector during the 1997-1999 ENSO cycle. Geophysical Research Letters, 2000, 27, 985-988.	1.5	55
61	The influence of oceanic conditions on the hot European summer of 2003. Climate Dynamics, 2006, 28, 53-66.	1.7	55
62	Does the North Atlantic Oscillation show unusual persistence on intraseasonal timescales?. Geophysical Research Letters, 2009, 36, .	1.5	55
63	Variability of the Atlantic thermohaline circulation described by three-dimensional empirical orthogonal functions. Climate Dynamics, 2007, 29, 745-762.	1.7	53
64	Decadal predictions of the cooling and freshening of the North Atlantic in the 1960s and the role of ocean circulation. Climate Dynamics, 2014, 42, 2353-2365.	1.7	53
65	What does global mean temperature tell us about local climate?. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2015, 373, 20140426.	1.6	53
66	Evaluating the potential for statistical decadal predictions of sea surface temperatures with a perfect model approach. Climate Dynamics, 2011, 37, 2495-2509.	1.7	51
67	Preferred response of the East Asian summer monsoon to local and non-local anthropogenic sulphur dioxide emissions. Climate Dynamics, 2016, 46, 1733-1751.	1.7	49
68	Forced decadal changes in the East Asian summer monsoon: the roles of greenhouse gases and anthropogenic aerosols. Climate Dynamics, 2018, 51, 3699-3715.	1.7	49
69	Atmospheric response in summer linked to recent Arctic sea ice loss. Quarterly Journal of the Royal Meteorological Society, 2015, 141, 2070-2076.	1.0	48
70	The 2015 European Heat Wave. Bulletin of the American Meteorological Society, 2016, 97, S57-S62.	1.7	47
71	The Impacts of European and Asian Anthropogenic Sulfur Dioxide Emissions on Sahel Rainfall. Journal of Climate, 2014, 27, 7000-7017.	1.2	44
72	The dominant mechanisms of variability in Atlantic Ocean Heat Transport in a Coupled Ocean-Atmosphere GCM. Geophysical Research Letters, 2001, 28, 2445-2448.	1.5	43

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73	An Anatomy of the Cooling of the North Atlantic Ocean in the 1960s and 1970s. Journal of Climate, 2014, 27, 8229-8243.	1.2	43
74	An intercomparison between the surface heat flux feedback in five coupled models, COADS and the NCEP reanalysis. Climate Dynamics, 2004, 22, 373-388.	1.7	42
75	Changes of interannual NAO variability in response to greenhouse gases forcing. Climate Dynamics, 2011, 37, 1621-1641.	1.7	42
76	Observational evidence of European summer weather patterns predictable from spring. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 59-63.	3.3	42
77	Aerosol contribution to the rapid warming of nearâ€term climate under RCP 2.6. Geophysical Research Letters, 2012, 39, .	1.5	40
78	Attribution of Forced Decadal Climate Change in Coupled and Uncoupled Oceanâ€“Atmosphere Model Experiments. Journal of Climate, 2017, 30, 6203-6223.	1.2	40
79	The impact of resolution on the adjustment and decadal variability of the Atlantic meridional overturning circulation in a coupled climate model. Climate Dynamics, 2012, 39, 3057-3073.	1.7	38
80	Predictable Climate Impacts of the Decadal Changes in the Ocean in the 1990s. Journal of Climate, 2013, 26, 6329-6339.	1.2	37
81	Mechanisms of decadal variability in the Labrador Sea and the wider North Atlantic in a high-resolution climate model. Climate Dynamics, 2017, 49, 2625-2647.	1.7	37
82	Indian Ocean Climate and Dipole Variability in Hadley Centre Coupled GCMs. Journal of Climate, 2005, 18, 2286-2307.	1.2	35
83	Potential predictability of rapid changes in the Atlantic meridional overturning circulation. Geophysical Research Letters, 2008, 35, .	1.5	35
84	Importance of density-compensated temperature change for deep North Atlantic Ocean heat uptake. Nature Geoscience, 2012, 5, 905-910.	5.4	35
85	Recent multivariate changes in the North Atlantic climate system, with a focus on 2005â€“2016. International Journal of Climatology, 2018, 38, 5050-5076.	1.5	34
86	A new feedback on climate change from the hydrological cycle. Geophysical Research Letters, 2007, 34, .	1.5	32
87	Mechanisms Linking Volcanic Aerosols to the Atlantic Meridional Overturning Circulation. Journal of Climate, 2012, 25, 3039-3051.	1.2	32
88	Atmospheric Impact of Arctic Sea Ice Loss in a Coupled Oceanâ€“Atmosphere Simulation*. Journal of Climate, 2015, 28, 9606-9622.	1.2	32
89	A Mechanism of Internal Decadal Atlantic Ocean Variability in a High-Resolution Coupled Climate Model. Journal of Climate, 2015, 28, 7764-7785.	1.2	32
90	Variability in North Atlantic heat content and heat transport in a coupled ocean-atmosphere GCM. Climate Dynamics, 2002, 19, 485-497.	1.7	29

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91	El NiÃ±o in a Coupled Climate Model: Sensitivity to Changes in Mean State Induced by Heat Flux and Wind Stress Corrections. Journal of Climate, 2007, 20, 2273-2298.	1.2	29
92	North Atlantic forcing of climate and its uncertainty from a multi-model experiment. Quarterly Journal of the Royal Meteorological Society, 2004, 130, 2013-2032.	1.0	28
93	Sensitivity of Historical Climate Simulations to Uncertain Aerosol Forcing. Geophysical Research Letters, 2020, 47, e2019GL085806.	1.5	28
94	Lagrangian flow in the middle atmosphere. Quarterly Journal of the Royal Meteorological Society, 1994, 120, 1299-1321.	1.0	27
95	ESD Ideas: a simple proposal to improve the contribution of IPCC WGI to the assessment and communication of climate change risks. Earth System Dynamics, 2018, 9, 1155-1158.	2.7	26
96	The effect of El NiÃ±o on intraseasonal Kelvin waves. Quarterly Journal of the Royal Meteorological Society, 2002, 128, 1277-1291.	1.0	25
97	The Interannual Variability of Energy Transports within and over the Atlantic Ocean in a Coupled Climate Model. Journal of Climate, 2004, 17, 1433-1448.	1.2	24
98	Changes in tropical Atlantic interannual variability from a substantial weakening of the meridional overturning circulation. Climate Dynamics, 2013, 41, 2765-2784.	1.7	23
99	The Interpretation and Use of Biases in Decadal Climate Predictions. Journal of Climate, 2014, 27, 2931-2947.	1.2	23
100	Case studies in interannual to decadal climate predictability. Climate Dynamics, 2010, 35, 1169-1189.	1.7	22
101	Recent decadal weakening of the summer Eurasian westerly jet attributable to anthropogenic aerosol emissions. Nature Communications, 2022, 13, 1148.	5.8	22
102	The 2014 Hot, Dry Summer in Northeast Asia. Bulletin of the American Meteorological Society, 2015, 96, S105-S110.	1.7	19
103	Processes governing the predictability of the Atlantic meridional overturning circulation in a coupled GCM. Climate Dynamics, 2011, 37, 1771-1782.	1.7	18
104	U.K. Community Earth System Modeling for CMIP6. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS002004.	1.3	18
105	Decadal predictions with the HiGEM high resolution global coupled climate model: description and basic evaluation. Climate Dynamics, 2017, 48, 297-311.	1.7	16
106	Development, Amplification, and Decay of Atlantic/European Summer Weather Patterns Linked to Spring North Atlantic Sea Surface Temperatures. Journal of Climate, 2020, 33, 5939-5951.	1.2	16
107	The seasonal forecast of electricity demand: a hierarchical Bayesian model with climatological weather generator. Applied Stochastic Models in Business and Industry, 2006, 22, 113-125.	0.9	15
108	Multiple perspectives on the attribution of the extreme European summer of 2012 to climate change. Climate Dynamics, 2018, 50, 3537-3555.	1.7	15

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109	On the climate response of the low-latitude Pacific Ocean to changes in the global freshwater cycle. Climate Dynamics, 2006, 27, 593-611.	1.7	14
110	Labrador Sea subsurface density as a precursor of multidecadal variability in the North Atlantic: a multi-model study. Earth System Dynamics, 2021, 12, 419-438.	2.7	13
111	Exploring multi-model atmospheric GCM ensembles with ANOVA. Climate Dynamics, 2008, 31, 973-986.	1.7	12
112	The influence of subseasonal wind variability on tropical instability waves in the Pacific. Geophysical Research Letters, 2001, 28, 2041-2044.	1.5	11
113	The Role of Anthropogenic Aerosol Forcing in the 1850â€“1985 Strengthening of the AMOC in CMIP6 Historical Simulations. Journal of Climate, 2022, 35, 3243-3263.	1.2	11
114	Predictability and skill of boreal winter forecasts made with the ECMWF Seasonal Forecasting System II. Quarterly Journal of the Royal Meteorological Society, 2006, 132, 2031-2053.	1.0	10
115	Quasi-periodic fluctuations in the Greenlandâ€“Icelandâ€“Norwegian Seas region in a coupled climate model. Ocean Dynamics, 2007, 57, 541-557.	0.9	10
116	Decadal climate prediction (project GCEP). Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2009, 367, 925-937.	1.6	10
117	Estimating Climatically Relevant Singular Vectors for Decadal Predictions of the Atlantic Ocean. Journal of Climate, 2011, 24, 109-123.	1.2	9
118	Projected near term changes in the East Asian summer monsoon and its uncertainty. Environmental Research Letters, 2019, 14, 084038.	2.2	9
119	Influence of May Atlantic Ocean initial conditions on the subsequent North Atlantic winter climate. Quarterly Journal of the Royal Meteorological Society, 2006, 132, 2977-2999.	1.0	8
120	A novel transport assimilation method for the Atlantic meridional overturning circulation at 26Â°N. Quarterly Journal of the Royal Meteorological Society, 2014, 140, 2563-2572.	1.0	8
121	The Evaluation of the North Atlantic Climate System in UKESM1 Historical Simulations for CMIP6. Journal of Advances in Modeling Earth Systems, 2020, 12, e2020MS002126.	1.3	8
122	Attributing extreme weather to climate change is not a done deal. Nature, 2018, 561, 177-177.	13.7	8
123	Sea-ice decline due to more than warming alone. Nature, 2007, 450, 27-27.	13.7	7
124	The impact of salinity perturbations on the future uptake of heat by the Atlantic Ocean. Geophysical Research Letters, 2014, 41, 9072-9079.	1.5	7
125	Processes shaping the spatial pattern and seasonality of the surface air temperature response to anthropogenic forcing. Climate Dynamics, 2020, 54, 3959-3975.	1.7	7
126	Climate predictability in the second year. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2009, 367, 913-916.	1.6	6

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127	ESD Ideas: Global climate response scenarios for IPCCÂassessments. Earth System Dynamics, 2020, 11, 751-754.	2.7	6
128	Recent trends in summer atmospheric circulation in the North Atlantic/European region: is there a role for anthropogenic aerosols?. Journal of Climate, 2021, , 1-49.	1.2	5
129	Informing adaptation: New challenges for the climate modelling community. Weather, 2005, 60, 186-189.	0.6	4
130	Impact of airâ€“sea coupling on Northern Hemisphere summer climate and the monsoonâ€“desert teleconnection. Climate Dynamics, 2019, 53, 5063-5078.	1.7	3
131	Attribution of 2012 extreme climate events: does air-sea interaction matter?. Climate Dynamics, 2020, 55, 1225-1245.	1.7	2
132	Challenges and opportunities for improved understanding of regional climate dynamics. , 0, .		1
133	Interactions between the stratospheric polar vortex and Atlantic circulation on seasonal to multi-decadal timescales. Atmospheric Chemistry and Physics, 2022, 22, 4867-4893.	1.9	1
134	Coupled Oceanâ€“Atmosphere Processes and European Climate (COAPEC): Improved Understanding of the Coupled Climate System. Journal of Climate, 2006, 19, 1065-1065.	1.2	0
135	CLIVAR Workshop on Atlantic Climate Predictability. Journal of Climate, 2006, 19, 5947-5947.	1.2	0