

Tim N Palmer

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

217
papers

19,660
citations

67
h-index

137
g-index

228
ext. papers

21,389
ext. citations

6.9
avg, IF

7.12
L-index

#	Paper	IF	Citations
217	Monsoons: Processes, predictability, and the prospects for prediction. <i>Journal of Geophysical Research</i> , 1998 , 103, 14451-14510		1993
216	The ECMWF Ensemble Prediction System: Methodology and validation. <i>Quarterly Journal of the Royal Meteorological Society</i> , 1996 , 122, 73-119	6.4	1038
215	Sahel rainfall and worldwide sea temperatures, 1901-85. <i>Nature</i> , 1986 , 320, 602-607	50.4	955
214	DEVELOPMENT OF A EUROPEAN MULTIMODEL ENSEMBLE SYSTEM FOR SEASONAL-TO-INTERANNUAL PREDICTION (DEMETER). <i>Bulletin of the American Meteorological Society</i> , 2004 , 85, 853-872	6.1	746
213	Stochastic representation of model uncertainties in the ECMWF ensemble prediction system. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2007 , 125, 2887-2908	6.4	677
212	Breaking planetary waves in the stratosphere. <i>Nature</i> , 1983 , 305, 593-600	50.4	576
211	Alleviation of a systematic westerly bias in general circulation and numerical weather prediction models through an orographic gravity wave drag parametrization. <i>Quarterly Journal of the Royal Meteorological Society</i> , 1986 , 112, 1001-1039	6.4	528
210	The Singular-Vector Structure of the Atmospheric Global Circulation. <i>Journals of the Atmospheric Sciences</i> , 1995 , 52, 1434-1456	2.1	512
209	Signature of recent climate change in frequencies of natural atmospheric circulation regimes. <i>Nature</i> , 1999 , 398, 799-802	50.4	472
208	Quantifying the risk of extreme seasonal precipitation events in a changing climate. <i>Nature</i> , 2002 , 415, 512-4	50.4	417
207	Intraseasonal oscillations in 15 atmospheric general circulation models: results from an AMIP diagnostic subproject. <i>Climate Dynamics</i> , 1996 , 12, 325-357	4.2	408
206	EC-Earth. <i>Bulletin of the American Meteorological Society</i> , 2010 , 91, 1357-1364	6.1	387
205	Singular Vectors, Metrics, and Adaptive Observations. <i>Journals of the Atmospheric Sciences</i> , 1998 , 55, 633-653	2.1	359
204	Malaria early warnings based on seasonal climate forecasts from multi-model ensembles. <i>Nature</i> , 2006 , 439, 576-9	50.4	351
203	A Nonlinear Dynamical Perspective on Climate Prediction. <i>Journal of Climate</i> , 1999 , 12, 575-591	4.4	329
202	. <i>Tellus, Series A: Dynamic Meteorology and Oceanography</i> , 2005 , 57, 219-233	2	328
201	Extended-Range Atmospheric Prediction and the Lorenz Model. <i>Bulletin of the American Meteorological Society</i> , 1993 , 74, 49-65	6.1	282

200	Predicting uncertainty in forecasts of weather and climate. <i>Reports on Progress in Physics</i> , 2000 , 63, 71-116.4	16.4	281
199	Tropical-Extratropical Interaction Associated with the 30-60 Day Oscillation and Its Impact on Medium and Extended Range Prediction. <i>Journals of the Atmospheric Sciences</i> , 1990 , 47, 2177-2199	2.1	274
198	A Spectral Stochastic Kinetic Energy Backscatter Scheme and Its Impact on Flow-Dependent Predictability in the ECMWF Ensemble Prediction System. <i>Journals of the Atmospheric Sciences</i> , 2009 , 66, 603-626	2.1	236
197	ENSEMBLES: A new multi-model ensemble for seasonal-to-annual predictions—skill and progress beyond DEMETER in forecasting tropical Pacific SSTs. <i>Geophysical Research Letters</i> , 2009 , 36,	4.9	207
196	Toward Seamless Prediction: Calibration of Climate Change Projections Using Seasonal Forecasts. <i>Bulletin of the American Meteorological Society</i> , 2008 , 89, 459-470	6.1	205
195	A nonlinear dynamical perspective on model error: A proposal for non-local stochastic-dynamic parametrization in weather and climate prediction models. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2001 , 127, 279-304	6.4	198
194	High-Resolution Global Climate Simulations with the ECMWF Model in Project Athena: Experimental Design, Model Climate, and Seasonal Forecast Skill. <i>Journal of Climate</i> , 2012 , 25, 3155-3172.4	4.4	184
193	Predictability and finite-time instability of the northern winter circulation. <i>Quarterly Journal of the Royal Meteorological Society</i> , 1993 , 119, 269-298	6.4	182
192	On the reliability of seasonal climate forecasts. <i>Journal of the Royal Society Interface</i> , 2014 , 11, 20131162.1	4.1	180
191	Uncertainty in weather and climate prediction. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2011 , 369, 4751-67	3	167
190	The economic value of ensemble forecasts as a tool for risk assessment: From days to decades. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2002 , 128, 747-774	6.4	167
189	Using numerical weather prediction to assess climate models. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2007 , 133, 129-146	6.4	156
188	A Probability and Decision-Model Analysis of a Multimodel Ensemble of Climate Change Simulations. <i>Journal of Climate</i> , 2001 , 14, 3212-3226	4.4	132
187	Response of two atmospheric general circulation models to sea-surface temperature anomalies in the tropical East and West Pacific. <i>Nature</i> , 1984 , 310, 483-485	50.4	132
186	. <i>Tellus, Series A: Dynamic Meteorology and Oceanography</i> , 2005 , 57, 234-252	2	129
185	Towards the probabilistic Earth-system simulator: a vision for the future of climate and weather prediction. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2012 , 138, 841-861	6.4	128
184	The prospects for seasonal forecasting—A review paper. <i>Quarterly Journal of the Royal Meteorological Society</i> , 1994 , 120, 755-793	6.4	113
183	Predictability of Seasonal Atmospheric Variations. <i>Journal of Climate</i> , 1994 , 7, 217-237	4.4	113

182	Parametrization and influence of subgridscale orography in general circulation and numerical weather prediction models. <i>Meteorology and Atmospheric Physics</i> , 1989 , 40, 84-109	2	113
181	The new VarEPS-monthly forecasting system: A first step towards seamless prediction. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2008 , 134, 1789-1799	6.4	109
180	Model error in weather forecasting. <i>Nonlinear Processes in Geophysics</i> , 2001 , 8, 357-371	2.9	107
179	Strategies: Revolution in Climate Prediction is Both Necessary and Possible: A Declaration at the World Modelling Summit for Climate Prediction. <i>Bulletin of the American Meteorological Society</i> , 2009 , 90, 175-178	6.1	105
178	Addressing model uncertainty in seasonal and annual dynamical ensemble forecasts. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2009 , 135, 1538-1559	6.4	101
177	Probabilistic prediction of climate using multi-model ensembles: from basics to applications. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2005 , 360, 1991-8	5.8	98
176	Sensitivity Analysis of Forecast Errors and the Construction of Optimal Perturbations Using Singular Vectors. <i>Journals of the Atmospheric Sciences</i> , 1998 , 55, 1012-1037	2.1	98
175	Regimes in the wintertime circulation over northern extratropics. I: Observational evidence. <i>Quarterly Journal of the Royal Meteorological Society</i> , 1990 , 116, 31-67	6.4	95
174	Comparing TIGGE multimodel forecasts with reforecast-calibrated ECMWF ensemble forecasts. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2012 , 138, 1814-1827	6.4	94
173	Stochastic representation of model uncertainties in the ECMWF ensemble prediction system 1999 , 125, 2887		92
172	A Study of the Predictability of Tropical Pacific SST in a Coupled Atmosphere-Ocean Model Using Singular Vector Analysis: The Role of the Annual Cycle and the ENSO Cycle*. <i>Monthly Weather Review</i> , 1997 , 125, 831-845	2.4	89
171	Tropical singular vectors computed with linearized diabatic physics. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2001 , 127, 685-708	6.4	88
170	Ensemble prediction using dynamically conditioned perturbations. <i>Quarterly Journal of the Royal Meteorological Society</i> , 1993 , 119, 299-323	6.4	88
169	Atmospheric science. Record-breaking winters and global climate change. <i>Science</i> , 2014 , 344, 803-4	33.3	87
168	Dynamically-based seasonal forecasts of Atlantic tropical storm activity issued in June by EUROSIP. <i>Geophysical Research Letters</i> , 2007 , 34,	4.9	87
167	A note on the general concept of wave breaking for Rossby and gravity waves. <i>Pure and Applied Geophysics</i> , 1985 , 123, 964-975	2.2	84
166	Predictability in a problem partly solved		83
165	3D-Var Hessian singular vectors and their potential use in the ECMWF ensemble prediction system. <i>Quarterly Journal of the Royal Meteorological Society</i> , 1999 , 125, 2333-2351	6.4	82

164	On the predictability of the extreme summer 2003 over Europe. <i>Geophysical Research Letters</i> , 2011 , 38, n/a-n/a	4.9	81
163	Convective Forcing Fluctuations in a Cloud-Resolving Model: Relevance to the Stochastic Parameterization Problem. <i>Journal of Climate</i> , 2007 , 20, 187-202	4.4	79
162	Ensemble prediction of tropical cyclones using targeted diabatic singular vectors. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2001 , 127, 709-731	6.4	76
161	Impact of localized tropical and extratropical SST anomalies in ensembles of seasonal GCM integrations. <i>Quarterly Journal of the Royal Meteorological Society</i> , 1994 , 120, 1613-1645	6.4	76
160	A nonlinear dynamical perspective on climate change. <i>Weather</i> , 1993 , 48, 314-326	0.9	76
159	Extended-range predictions with ECMWF models: Time-lagged ensemble forecasting. <i>Quarterly Journal of the Royal Meteorological Society</i> , 1990 , 116, 867-912	6.4	76
158	Simulating regime structures in weather and climate prediction models. <i>Geophysical Research Letters</i> , 2012 , 39, n/a-n/a	4.9	75
157	Atmospheric seasonal forecasts of the twentieth century: multi-decadal variability in predictive skill of the winter North Atlantic Oscillation (NAO) and their potential value for extreme event attribution. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2017 , 143, 917-926	6.4	74
156	An Earth-System Prediction Initiative for the Twenty-First Century. <i>Bulletin of the American Meteorological Society</i> , 2010 , 91, 1377-1388	6.1	71
155	Systematic Model Error: The Impact of Increased Horizontal Resolution versus Improved Stochastic and Deterministic Parameterizations. <i>Journal of Climate</i> , 2012 , 25, 4946-4962	4.4	71
154	Simulations of an observed stratospheric warming with quasigeostrophic refractive index as a model diagnostic. <i>Quarterly Journal of the Royal Meteorological Society</i> , 1982 , 108, 475-502	6.4	71
153	Impact of 2007 and 2008 Arctic ice anomalies on the atmospheric circulation: Implications for long-range predictions. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2010 , 136, 1655-1664	6.4	70
152	Simulating weather regimes: impact of model resolution and stochastic parameterization. <i>Climate Dynamics</i> , 2015 , 44, 2177-2193	4.2	69
151	Medium and extended range predictability and stability of the Pacific/North American mode. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2006 , 114, 691-713	6.4	69
150	Benefits of increased resolution in the ECMWF ensemble system and comparison with poor-man's ensembles. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2003 , 129, 1269-1288	6.4	67
149	Stochastic parametrizations and model uncertainty in the Lorenz '96 system. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2013 , 371, 20110479	3	66
148	Singular Vectors: The Effect of Spatial Scale on Linear Growth of Disturbances. <i>Journals of the Atmospheric Sciences</i> , 1995 , 52, 3885-3894	2.1	64
147	Addressing model error through atmospheric stochastic physical parametrizations: impact on the coupled ECMWF seasonal forecasting system. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2014 , 372, 20130290	3	63

146	Assessment of representations of model uncertainty in monthly and seasonal forecast ensembles. <i>Geophysical Research Letters</i> , 2011 , 38, n/a-n/a	4.9	62
145	Diagnosing the Origin of Extended-Range Forecast Errors. <i>Monthly Weather Review</i> , 2010 , 138, 2434-2446	4.4	60
144	Analysis and model dependencies in medium-range ensembles: Two transplant case-studies. <i>Quarterly Journal of the Royal Meteorological Society</i> , 1999 , 125, 2487-2515	6.4	60
143	The ECMWF ensemble prediction system: Looking back (more than) 25 years and projecting forward 25 years. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2019 , 145, 12-24	6.4	58
142	Impact of a quasi-stochastic cellular automaton backscatter scheme on the systematic error and seasonal prediction skill of a global climate model. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2008 , 366, 2561-79	3	58
141	Climate forecasting: build high-resolution global climate models. <i>Nature</i> , 2014 , 515, 338-9	50.4	58
140	Forcing singular vectors and other sensitive model structures. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2003 , 129, 2401-2423	6.4	57
139	Decadal climate prediction with the European Centre for Medium-Range Weather Forecasts coupled forecast system: Impact of ocean observations. <i>Journal of Geophysical Research</i> , 2011 , 116,		55
138	Toward a New Generation of World Climate Research and Computing Facilities. <i>Bulletin of the American Meteorological Society</i> , 2010 , 91, 1407-1412	6.1	55
137	Single Precision in Weather Forecasting Models: An Evaluation with the IFS. <i>Monthly Weather Review</i> , 2017 , 145, 495-502	2.4	54
136	Climate SPHINX: evaluating the impact of resolution and stochastic physics parameterisations in the EC-Earth global climate model. <i>Geoscientific Model Development</i> , 2017 , 10, 1383-1402	6.3	54
135	A modelling and observational study of the relationship between sea surface temperature in the North-West atlantic and the atmospheric general circulation 1985 , 111, 947		54
134	A study of wintertime circulation anomalies during past El Niño events using a high resolution general circulation model. I: Influence of model climatology. <i>Quarterly Journal of the Royal Meteorological Society</i> , 1986 , 112, 613-638	6.4	53
133	The real butterfly effect. <i>Nonlinearity</i> , 2014 , 27, R123-R141	1.7	51
132	Reliability of decadal predictions. <i>Geophysical Research Letters</i> , 2012 , 39, n/a-n/a	4.9	51
131	Extended-range predictions with ecmwf models: Influence of horizontal resolution on systematic error and forecast skill. <i>Quarterly Journal of the Royal Meteorological Society</i> , 1990 , 116, 835-866	6.4	51
130	The scientific challenge of understanding and estimating climate change. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019 , 116, 24390-24395	11.5	51
129	On the Prediction of Forecast Skill. <i>Monthly Weather Review</i> , 1988 , 116, 2453-2480	2.4	50

128	Stochastic and Perturbed Parameter Representations of Model Uncertainty in Convection Parameterization*. <i>Journals of the Atmospheric Sciences</i> , 2015 , 72, 2525-2544	2.1	47
127	Impact of increasing greenhouse gas concentrations in seasonal ensemble forecasts. <i>Geophysical Research Letters</i> , 2006 , 33,	4.9	47
126	A study of wintertime circulation anomalies during past El Niño events using a high resolution general circulation model. II: Variability of the seasonal mean response. <i>Quarterly Journal of the Royal Meteorological Society</i> , 1986 , 112, 639-660	6.4	47
125	Historical reconstruction of the Atlantic Meridional Overturning Circulation from the ECMWF operational ocean reanalysis. <i>Geophysical Research Letters</i> , 2007 , 34, n/a-n/a	4.9	46
124	Benchmark Tests for Numerical Weather Forecasts on Inexact Hardware. <i>Monthly Weather Review</i> , 2014 , 142, 3809-3829	2.4	43
123	Understanding the Anomalously Cold European Winter of 2005/06 Using Relaxation Experiments. <i>Monthly Weather Review</i> , 2010 , 138, 3157-3174	2.4	39
122	Stochastic weather and climate models. <i>Nature Reviews Physics</i> , 2019 , 1, 463-471	23.6	38
121	Stochastic Parameterization and El Niño/Southern Oscillation. <i>Journal of Climate</i> , 2017 , 30, 17-38	4.4	38
120	Impact of hindcast length on estimates of seasonal climate predictability. <i>Geophysical Research Letters</i> , 2015 , 42, 1554-1559	4.9	37
119	Changing frequency of occurrence of extreme seasonal temperatures under global warming. <i>Geophysical Research Letters</i> , 2005 , 32,	4.9	37
118	Estimates of flow-dependent predictability of wintertime Euro-Atlantic weather regimes in medium-range forecasts. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2018 , 144, 1012-1027	6.4	36
117	Introduction. Stochastic physics and climate modelling. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2008 , 366, 2421-7	3	36
116	Decaying Singular Vectors and Their Impact on Analysis and Forecast Correction. <i>Journals of the Atmospheric Sciences</i> , 1998 , 55, 3005-3023	2.1	35
115	Nonlinear Dynamics and Climate Change: Rossby's Legacy. <i>Bulletin of the American Meteorological Society</i> , 1998 , 79, 1411-1423	6.1	35
114	A Dynamical Interpretation of the Global Response to Equatorial Pacific SST Anomalies. <i>Journal of Climate</i> , 1993 , 6, 777-795	4.4	35
113	Influence of a stochastic parameterization on the frequency of occurrence of North Pacific weather regimes in the ECMWF model. <i>Geophysical Research Letters</i> , 2005 , 32,	4.9	34
112	Extended-range predictions with ECMWF models: Interannual variability in operational model integrations. <i>Quarterly Journal of the Royal Meteorological Society</i> , 1990 , 116, 799-834	6.4	34
111	Stratospheric Sudden Coolings and the Role of Nonlinear Wave Interactions in Preconditioning the Circumpolar Flow. <i>Journals of the Atmospheric Sciences</i> , 1983 , 40, 909-928	2.1	34

110	The role of the tropical West Pacific in the extreme Northern Hemisphere winter of 2013/2014. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016 , 121, 1698-1714	4.4	33
109	Variability in seasonal forecast skill of Northern Hemisphere winters over the twentieth century. <i>Geophysical Research Letters</i> , 2017 , 44, 5729-5738	4.9	32
108	Ensemble decadal predictions from analysed initial conditions. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2007 , 365, 2179-91	3	32
107	Predictability of the Atmosphere and Oceans: From Days to Decades 1996 , 83-155		32
106	The European Centre for Medium-Range Weather Forecasts (ECMWF) Program on Extended-Range Prediction. <i>Bulletin of the American Meteorological Society</i> , 1990 , 71, 1317-1330	6.1	31
105	Potential improvement to forecasts of two severe storms using targeted observations. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2002 , 128, 1641-1670	6.4	30
104	A forecast quality assessment of an end-to-end probabilistic multi-model seasonal forecast system using a malaria model. <i>Tellus, Series A: Dynamic Meteorology and Oceanography</i> , 2005 , 57, 464-475	2	30
103	Modelling: Build imprecise supercomputers. <i>Nature</i> , 2015 , 526, 32-3	50.4	29
102	Introducing independent patterns into the Stochastically Perturbed Parametrization Tendencies (SPPT) scheme. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2017 , 143, 2168-2181	6.4	28
101	Climate extremes and the role of dynamics. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013 , 110, 5281-2	11.5	25
100	Sensitivity analysis of atmospheric low-frequency variability. <i>Quarterly Journal of the Royal Meteorological Society</i> , 1997 , 123, 2425-2447	6.4	25
99	On the use of programmable hardware and reduced numerical precision in earth-system modeling. <i>Journal of Advances in Modeling Earth Systems</i> , 2015 , 7, 1393-1408	7.1	24
98	On the use of scale-dependent precision in Earth System modelling. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2017 , 143, 897-908	6.4	23
97	Rethinking Superdeterminism. <i>Frontiers in Physics</i> , 2020 , 8,	3.9	23
96	A Possible Relationship between Some Severe Winters in North America and Enhanced Convective Activity over the Tropical West Pacific. <i>Monthly Weather Review</i> , 1986 , 114, 648-651	2.4	23
95	A personal perspective on modelling the climate system. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2016 , 472, 20150772	2.4	23
94	Evaluation of ensemble forecast uncertainty using a new proper score: Application to medium-range and seasonal forecasts. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2015 , 141, 538-549	6.4	22
93	More reliable forecasts with less precise computations: a fast-track route to cloud-resolved weather and climate simulators?. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2014 , 372, 20130391	3	22

92	A forecast quality assessment of an end-to-end probabilistic multi-model seasonal forecast system using a malaria model. <i>Tellus, Series A: Dynamic Meteorology and Oceanography</i> , 2005 , 57, 464-475	2	22
91	Oceanic Stochastic Parameterizations in a Seasonal Forecast System. <i>Monthly Weather Review</i> , 2016 , 144, 1867-1875	2.4	21
90	The Invariant Set Postulate: a new geometric framework for the foundations of quantum theory and the role played by gravity. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2009 , 465, 3165-3185	2.4	21
89	Simulating weather regimes: impact of stochastic and perturbed parameter schemes in a simple atmospheric model. <i>Climate Dynamics</i> , 2015 , 44, 2195-2214	4.2	20
88	The impact of stochastic physics on tropical rainfall variability in global climate models on daily to weekly time scales. <i>Journal of Geophysical Research D: Atmospheres</i> , 2017 , 122, 5738-5762	4.4	20
87	Diagnosing the causes of bias in climate models – why is it so hard?. <i>Geophysical and Astrophysical Fluid Dynamics</i> , 2011 , 105, 351-365	1.4	20
86	Stochastic Subgrid-Scale Ocean Mixing: Impacts on Low-Frequency Variability. <i>Journal of Climate</i> , 2017 , 30, 4997-5019	4.4	19
85	Impact of Initial Conditions versus External Forcing in Decadal Climate Predictions: A Sensitivity Experiment*. <i>Journal of Climate</i> , 2015 , 28, 4454-4470	4.4	19
84	On the use of inexact, pruned hardware in atmospheric modelling. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2014 , 372, 20130276	3	19
83	Singular vectors, predictability and ensemble forecasting for weather and climate. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2013 , 46, 254018	2	19
82	Signal and noise in regime systems: A hypothesis on the predictability of the North Atlantic Oscillation. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2019 , 145, 147-163	6.4	19
81	Accuracy of climate change predictions using high resolution simulations as surrogates of truth. <i>Geophysical Research Letters</i> , 2011 , 38, n/a-n/a	4.9	18
80	The ECMWF Ensemble Prediction System: Methodology and validation 1996 , 122, 73		18
79	The primacy of doubt: Evolution of numerical weather prediction from determinism to probability. <i>Journal of Advances in Modeling Earth Systems</i> , 2017 , 9, 730-734	7.1	17
78	Reliable low precision simulations in land surface models. <i>Climate Dynamics</i> , 2018 , 51, 2657-2666	4.2	16
77	Opportunities for energy efficient computing: A study of inexact general purpose processors for high-performance and big-data applications 2015 ,		16
76	Model error in weather and climate forecasting 391-427		16
75	Predictability of seasonal climate variations: a pedagogical review 306-341		16

74	THE MONTE CARLO FORECAST. <i>Weather</i> , 1990 , 45, 198-207	0.9	16
73	Scale-Selective Precision for Weather and Climate Forecasting. <i>Monthly Weather Review</i> , 2019 , 147, 645-655	6.5	16
72	Ensemble superparameterization versus stochastic parameterization: A comparison of model uncertainty representation in tropical weather prediction. <i>Journal of Advances in Modeling Earth Systems</i> , 2017 , 9, 1231-1250	7.1	15
71	How confident are predictability estimates of the winter North Atlantic Oscillation?. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2019 , 145, 140-159	6.4	15
70	Seasonal and decadal forecasts of Atlantic Sea surface temperatures using a linear inverse model. <i>Climate Dynamics</i> , 2017 , 49, 1833-1845	4.2	15
69	Does the ECMWF IFS Convection Parameterization with Stochastic Physics Correctly Reproduce Relationships between Convection and the Large-Scale State?. <i>Journals of the Atmospheric Sciences</i> , 2015 , 72, 236-242	2.1	15
68	The ECMWF Ensemble Prediction System	4.59-4.88	15
67	Global warming in a nonlinear climate - Can we be sure?. <i>Europhysics News</i> , 2005 , 36, 42-46	0.2	15
66	Handling uncertainty in science. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2011 , 369, 4681-4	3	14
65	The influence of north-west Atlantic sea surface temperature: An unplanned experiment. <i>Weather</i> , 1995 , 50, 413-419	0.9	14
64	Improving Weather Forecast Skill through Reduced-Precision Data Assimilation. <i>Monthly Weather Review</i> , 2018 , 146, 49-62	2.4	14
63	Choosing the Optimal Numerical Precision for Data Assimilation in the Presence of Model Error. <i>Journal of Advances in Modeling Earth Systems</i> , 2018 , 10, 2177-2191	7.1	14
62	Accelerating High-Resolution Weather Models with Deep-Learning Hardware	2019 ,	13
61	Seasonal Forecasts of the Twentieth Century. <i>Bulletin of the American Meteorological Society</i> , 2020 , 101, E1413-E1426	6.1	13
60	Posits as an alternative to floats for weather and climate models	2019 ,	12
59	A study of reduced numerical precision to make superparameterization more competitive using a hardware emulator in the OpenIFS model. <i>Journal of Advances in Modeling Earth Systems</i> , 2017 , 9, 566-584	7.1	12
58	Predictability of weather and climate: from theory to practice	1-29	11
57	Opportunities and challenges for machine learning in weather and climate modelling: hard, medium and soft AI. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2021 , 379, 20200083	3	11

56	Number Formats, Error Mitigation, and Scope for 16-Bit Arithmetics in Weather and Climate Modeling Analyzed With a Shallow Water Model. <i>Journal of Advances in Modeling Earth Systems</i> , 2020 , 12, e2020MS002246	7.1	10
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