

Tim N Palmer

List of Publications by Year in Descending Order

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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	Fluid Simulations Accelerated With 16 Bits: Approaching 4x Speedup on A64FX by Squeezing ShallowWaters.jl Into Float16. <i>Journal of Advances in Modeling Earth Systems</i> , 2022 , 14,	7.1	1
216	Bell's theorem, non-computability and conformal cyclic cosmology: A top-down approach to quantum gravity. <i>AVS Quantum Science</i> , 2021 , 3, 040801	10.3	
215	Forecast-based attribution of a winter heatwave within the limit of predictability. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021 , 118,	11.5	2
214	Compressing atmospheric data into its real information content. <i>Nature Computational Science</i> , 2021 , 1, 713-724		1
213	Climate Modelling in Low Precision: Effects of Both Deterministic & Stochastic Rounding.. <i>Journal of Climate</i> , 2021 , 1-43	4.4	1
212	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
211	Machine Learning Emulation of Gravity Wave Drag in Numerical Weather Forecasting. <i>Journal of Advances in Modeling Earth Systems</i> , 2021 , 13, e2021MS002477	7.1	9
210	Building Tangent-Linear and Adjoint Models for Data Assimilation With Neural Networks. <i>Journal of Advances in Modeling Earth Systems</i> , 2021 , 13, e2021MS002521	7.1	6
209	Undecidability, Fractal Geometry and the Unity of Physics. <i>The Frontiers Collection</i> , 2021 , 81-95	0.3	
208	Rethinking Superdeterminism. <i>Frontiers in Physics</i> , 2020 , 8,	3.9	23
207	Human Creativity and Consciousness: Unintended Consequences of the Brain's Extraordinary Energy Efficiency?. <i>Entropy</i> , 2020 , 22,	2.8	2
206	The physics of numerical analysis: a climate modelling case study. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2020 , 378, 20190058	3	1
205	Reduced-precision parametrization: lessons from an intermediate-complexity atmospheric model. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2020 , 146, 1590-1607	6.4	4
204	Seasonal Forecasts of the Twentieth Century. <i>Bulletin of the American Meteorological Society</i> , 2020 , 101, E1413-E1426	6.1	13
203	Single-Precision in the Tangent-Linear and Adjoint Models of Incremental 4D-Var. <i>Monthly Weather Review</i> , 2020 , 148, 1541-1552	2.4	2
202	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
201	Beyond skill scores: exploring sub-seasonal forecast value through a case-study of French month-ahead energy prediction. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2020 , 146, 3623-3637	6.4	5

200	Assessing the robustness of multidecadal variability in Northern Hemisphere wintertime seasonal forecast skill. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2020 , 146, 4055-4066	6.4	4
199	Discretization of the Bloch sphere, fractal invariant sets and Bell's theorem. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2020 , 476, 20190350	2.4	7
198	Posits as an alternative to floats for weather and climate models 2019 ,		12
197	Progress towards a probabilistic Earth system model: examining the impact of stochasticity in the atmosphere and land component of EC-Earth v3.2. <i>Geoscientific Model Development</i> , 2019 , 12, 3099-3118	6.3	5
196	Accelerating High-Resolution Weather Models with Deep-Learning Hardware 2019 ,		13
195	Stochastic weather and climate models. <i>Nature Reviews Physics</i> , 2019 , 1, 463-471	23.6	38
194	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
193	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
192	A Stochastic Representation of Subgrid Uncertainty for Dynamical Core Development. <i>Bulletin of the American Meteorological Society</i> , 2019 , 100, 1091-1101	6.1	2
191	The Impact of a Stochastic Parameterization Scheme on Climate Sensitivity in EC-Earth. <i>Journal of Geophysical Research D: Atmospheres</i> , 2019 , 124, 12726-12740	4.4	3
190	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
189	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
188	Scale-Selective Precision for Weather and Climate Forecasting. <i>Monthly Weather Review</i> , 2019 , 147, 645-655	6.4	16
187	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
186	Reliable low precision simulations in land surface models. <i>Climate Dynamics</i> , 2018 , 51, 2657-2666	4.2	16
185	Flow dependent ensemble spread in seasonal forecasts of the boreal winter extratropics. <i>Atmospheric Science Letters</i> , 2018 , 19, e815	2.4	5
184	The impact of stochastic parametrisations on the representation of the Asian summer monsoon. <i>Climate Dynamics</i> , 2018 , 50, 2269-2282	4.2	4
183	Experimental Non-Violation of the Bell Inequality. <i>Entropy</i> , 2018 , 20,	2.8	4

182	Improving Weather Forecast Skill through Reduced-Precision Data Assimilation. <i>Monthly Weather Review</i> , 2018 , 146, 49-62	2.4	14
181	Seasonal to annual ocean forecasting skill and the role of model and observational uncertainty. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2018 , 144, 1947-1964	6.4	9
180	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
179	A power law for reduced precision at small spatial scales: Experiments with an SQG model. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2018 , 144, 1179-1188	6.4	7
178	A Simple Pedagogical Model Linking Initial-Value Reliability with Trustworthiness in the Forced Climate Response. <i>Bulletin of the American Meteorological Society</i> , 2018 , 99, 605-614	6.1	4
177	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
176	Single Precision in Weather Forecasting Models: An Evaluation with the IFS. <i>Monthly Weather Review</i> , 2017 , 145, 495-502	2.4	54
175	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
174	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
173	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
172	Stochastic Subgrid-Scale Ocean Mixing: Impacts on Low-Frequency Variability. <i>Journal of Climate</i> , 2017 , 30, 4997-5019	4.4	19
171	Bitwise efficiency in chaotic models. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2017 , 473, 20170144	2.4	7
170	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
169	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
168	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
167	Impact of stochastic physics on tropical precipitation in the coupled ECMWF model. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2017 , 143, 852-865	6.4	9
166	Stochastic Parameterization and El Niño Southern Oscillation. <i>Journal of Climate</i> , 2017 , 30, 17-38	4.4	38
165	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

164	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 ¹	7.1	12
163	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
162	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
161	Oceanic Stochastic Parameterizations in a Seasonal Forecast System. <i>Monthly Weather Review</i> , 2016 , 144, 1867-1875	2.4	21
160	Calibrating Climate Change Time-Slice Projections with Estimates of Seasonal Forecast Reliability. <i>Journal of Climate</i> , 2016 , 29, 3831-3840	4.4	5
159	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
158	Simulating weather regimes: impact of model resolution and stochastic parameterization. <i>Climate Dynamics</i> , 2015 , 44, 2177-2193	4.2	69
157	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
156	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
155	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
154	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
153	Impact of hindcast length on estimates of seasonal climate predictability. <i>Geophysical Research Letters</i> , 2015 , 42, 1554-1559	4.9	37
152	Bell's conspiracy, Schrödinger's black cat and global invariant sets. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2015 , 373,	3	5
151	Opportunities for energy efficient computing: A study of inexact general purpose processors for high-performance and big-data applications 2015 ,		16
150	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
149	Solving difficult problems creatively: a role for energy optimised deterministic/stochastic hybrid computing. <i>Frontiers in Computational Neuroscience</i> , 2015 , 9, 124	3.5	3
148	Modelling: Build imprecise supercomputers. <i>Nature</i> , 2015 , 526, 32-3	50.4	29
147	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

146	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
145	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
144	On the reliability of seasonal climate forecasts. <i>Journal of the Royal Society Interface</i> , 2014 , 11, 201311624.1	4.1	180
143	Lorenz, Gödel and Penrose: new perspectives on determinism and causality in fundamental physics. <i>Contemporary Physics</i> , 2014 , 55, 157-178	3.3	7
142	Stochastic modelling and energy-efficient computing for weather and climate prediction. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2014 , 372, 201401183	3	9
141	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
140	Benchmark Tests for Numerical Weather Forecasts on Inexact Hardware. <i>Monthly Weather Review</i> , 2014 , 142, 3809-3829	2.4	43
139	The real butterfly effect. <i>Nonlinearity</i> , 2014 , 27, R123-R141	1.7	51
138	Atmospheric science. Record-breaking winters and global climate change. <i>Science</i> , 2014 , 344, 803-4	33.3	87
137	Climate forecasting: build high-resolution global climate models. <i>Nature</i> , 2014 , 515, 338-9	50.4	58
136	Singular vectors, predictability and ensemble forecasting for weather and climate. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2013 , 46, 254018	2	19
135	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
134	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
133	Simulating regime structures in weather and climate prediction models. <i>Geophysical Research Letters</i> , 2012 , 39, n/a-n/a	4.9	75
132	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	184
131	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
130	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
129	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

128	Reliability of decadal predictions. <i>Geophysical Research Letters</i> , 2012 , 39, n/a-n/a	4.9	51
127	On the predictability of the extreme summer 2003 over Europe. <i>Geophysical Research Letters</i> , 2011 , 38, n/a-n/a	4.9	81
126	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
125	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
124	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
123	A CERN for climate change. <i>Physics World</i> , 2011 , 24, 14-15	0.5	9
122	Handling uncertainty in science. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2011 , 369, 4681-4	3	14
121	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
120	Uncertainty in weather and climate prediction. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2011 , 369, 4751-67	3	167
119	EC-Earth. <i>Bulletin of the American Meteorological Society</i> , 2010 , 91, 1357-1364	6.1	387
118	Understanding the Anomalously Cold European Winter of 2005/06 Using Relaxation Experiments. <i>Monthly Weather Review</i> , 2010 , 138, 3157-3174	2.4	39
117	Diagnosing the Origin of Extended-Range Forecast Errors. <i>Monthly Weather Review</i> , 2010 , 138, 2434-2446	4.4	60
116	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
115	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
114	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
113	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
112	A comparative method to evaluate and validate stochastic parametrizations. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2009 , 135, 1095-1103	6.4	3
111	The characteristics of Hessian singular vectors using an advanced data assimilation scheme. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2009 , 135, 1117-1132	6.4	9


110	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
109	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
108	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
107	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
106	Introduction. Stochastic physics and climate modelling. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2008 , 366, 2421-7	3	36
105	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
104	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
103	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
102	Dynamically-based seasonal forecasts of Atlantic tropical storm activity issued in June by EUROSIP. <i>Geophysical Research Letters</i> , 2007 , 34,	4.9	87
101	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
100	Using numerical weather prediction to assess climate models. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2007 , 133, 129-146	6.4	156
99	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
98	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
97	Ensemble decadal predictions from analysed initial conditions. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2007 , 365, 2179-91	3	32
96	Impact of increasing greenhouse gas concentrations in seasonal ensemble forecasts. <i>Geophysical Research Letters</i> , 2006 , 33,	4.9	47
95	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
94	Malaria early warnings based on seasonal climate forecasts from multi-model ensembles. <i>Nature</i> , 2006 , 439, 576-9	50.4	351
93	Changing frequency of occurrence of extreme seasonal temperatures under global warming. <i>Geophysical Research Letters</i> , 2005 , 32,	4.9	37

92	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
91	. <i>Tellus, Series A: Dynamic Meteorology and Oceanography</i> , 2005 , 57, 219-233	2	328
90	. <i>Tellus, Series A: Dynamic Meteorology and Oceanography</i> , 2005 , 57, 234-252	2	129
89	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
88	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
87	Global warming in a nonlinear climate - Can we be sure?. <i>Europhysics News</i> , 2005 , 36, 42-46	0.2	15
86	Quantum Reality, Complex Numbers, and the Meteorological Butterfly Effect. <i>Bulletin of the American Meteorological Society</i> , 2005 , 86, 519-530	6.1	6
85	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
84	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
83	A granular permutation-based representation of complex numbers and quaternions: elements of a possible realistic quantum theory. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2004 , 460, 1039-1055	2.4	5
82	Forcing singular vectors and other sensitive model structures. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2003 , 129, 2401-2423	6.4	57
81	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
80	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
79	Quantifying the risk of extreme seasonal precipitation events in a changing climate. <i>Nature</i> , 2002 , 415, 512-4	50.4	417
78	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
77	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
76	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
75	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

74	Tropical singular vectors computed with linearized diabatic physics. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2001 , 127, 685-708	6.4	88
73	Model error in weather forecasting. <i>Nonlinear Processes in Geophysics</i> , 2001 , 8, 357-371	2.9	107
72	Predicting uncertainty in forecasts of weather and climate. <i>Reports on Progress in Physics</i> , 2000 , 63, 71-116	16.4	281
71	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
70	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
69	Signature of recent climate change in frequencies of natural atmospheric circulation regimes. <i>Nature</i> , 1999 , 398, 799-802	50.4	472
68	A Nonlinear Dynamical Perspective on Climate Prediction. <i>Journal of Climate</i> , 1999 , 12, 575-591	4.4	329
67	Analysis and model dependencies in medium-range ensembles: Two transplant case-studies 1999 , 125, 2487		3
66	Stochastic representation of model uncertainties in the ECMWF ensemble prediction system 1999 , 125, 2887		92
65	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
64	Monsoons: Processes, predictability, and the prospects for prediction. <i>Journal of Geophysical Research</i> , 1998 , 103, 14451-14510		1993
63	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
62	Singular Vectors, Metrics, and Adaptive Observations. <i>Journals of the Atmospheric Sciences</i> , 1998 , 55, 633-653	2.1	359
61	Nonlinear Dynamics and Climate Change: Rossby's Legacy. <i>Bulletin of the American Meteorological Society</i> , 1998 , 79, 1411-1423	6.1	35
60	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
59	Sensitivity analysis of atmospheric low-frequency variability. <i>Quarterly Journal of the Royal Meteorological Society</i> , 1997 , 123, 2425-2447	6.4	25
58	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
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2 Invariant Set Theory: Violating Measurement Independence without Fine Tuning, Conspiracy, Constraints on Free Will or Retrocausality. *Electronic Proceedings in Theoretical Computer Science, EPTCS,195*, 285-294

1 Fluid simulations accelerated with 16 bit: Approaching 4x speedup on A64FX by squeezing ShallowWaters.jl into Float16

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