

# Elizabeth A Barnes

## 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.

102  
papers

3,939  
citations

35  
h-index

61  
g-index

143  
ext. papers

4,679  
ext. citations

5  
avg, IF

6.42  
L-index

#	Paper	IF	Citations
102	Wintertime Rossby Wave Breaking Persistence in Extended-range Seasonal Forecasts of Atlantic Tropical Cyclone Activity. <i>Journal of Climate</i> , <b>2022</b> , 1-49	4.4	
101	Role of the Tropics in State-Dependent Improvements of US West Coast NOAA Unified Forecast System Precipitation Forecasts. <i>Geophysical Research Letters</i> , <b>2022</b> , 49,	4.9	
100	Predicting Slowdowns in Decadal Climate Warming Trends With Explainable Neural Networks. <i>Geophysical Research Letters</i> , <b>2022</b> , 49,	4.9	0
99	Neural network attribution methods for problems in geoscience: A novel synthetic benchmark dataset <b>2022</b> , 1,		4
98	Oceanic Harbingers of Pacific Decadal Oscillation Predictability in CESM2 Detected by Neural Networks. <i>Geophysical Research Letters</i> , <b>2021</b> , 48, e2021GL095392	4.9	2
97	Strengthened Causal Connections Between the MJO and the North Atlantic With Climate Warming. <i>Geophysical Research Letters</i> , <b>2021</b> , 48, e2020GL091168	4.9	4
96	A machine-learning approach to human footprint index estimation with applications to sustainable development. <i>Environmental Research Letters</i> , <b>2021</b> , 16, 044061	6.2	6
95	Subseasonal Forecasts of Opportunity Identified by an Explainable Neural Network. <i>Geophysical Research Letters</i> , <b>2021</b> , 48, e2020GL092092	4.9	7
94	Assessing Decadal Predictability in an Earth-System Model Using Explainable Neural Networks. <i>Geophysical Research Letters</i> , <b>2021</b> , 48, e2021GL093842	4.9	5
93	Mapping Large-Scale Climate Variability to Hydrological Extremes: An Application of the Linear Inverse Model to Subseasonal Prediction. <i>Journal of Climate</i> , <b>2021</b> , 34, 4207-4225	4.4	2
92	Detecting Climate Signals Using Explainable AI With Single-Forcing Large Ensembles. <i>Journal of Advances in Modeling Earth Systems</i> , <b>2021</b> , 13, e2021MS002464	7.1	2
91	Drivers of uncertainty in future projections of Madden-Julian Oscillation teleconnections. <i>Weather and Climate Dynamics</i> , <b>2021</b> , 2, 653-673	3.3	1
90	Towards neural Earth system modelling by integrating artificial intelligence in Earth system science. <i>Nature Machine Intelligence</i> , <b>2021</b> , 3, 667-674	22.5	17
89	Estimating the Spread in Future Fine Dust Concentrations in the Southwest United States. <i>Journal of Geophysical Research D: Atmospheres</i> , <b>2020</b> , 125, e2019JD031735	4.4	2
88	Indicator Patterns of Forced Change Learned by an Artificial Neural Network. <i>Journal of Advances in Modeling Earth Systems</i> , <b>2020</b> , 12, e2020MS002195	7.1	17
87	Investigating Recent Changes in MJO Precipitation and Circulation in Multiple Reanalyses. <i>Geophysical Research Letters</i> , <b>2020</b> , 47, e2020GL090139	4.9	3
86	The Consistency of MJO Teleconnection Patterns on Interannual Time Scales. <i>Journal of Climate</i> , <b>2020</b> , 33, 3471-3486	4.4	10

85	Introduction to Special Collection: Bridging Weather and Climate: Subseasonal-to-Seasonal (S2S) Prediction <i>Journal of Geophysical Research D: Atmospheres</i> , <b>2020</b> , 125, e2019JD031833	4.4	8
84	Windows of Opportunity for Skillful Forecasts Subseasonal to Seasonal and Beyond. <i>Bulletin of the American Meteorological Society</i> , <b>2020</b> , 101, E608-E625	6.1	46
83	Skillful All-Season S2S Prediction of U.S. Precipitation Using the MJO and QBO. <i>Weather and Forecasting</i> , <b>2020</b> , 35, 2179-2198	2.1	7
82	Subseasonal midlatitude prediction skill following Quasi-Biennial Oscillation and Madden-Julian Oscillation activity. <i>Weather and Climate Dynamics</i> , <b>2020</b> , 1, 247-259	3.3	4
81	The Importance of Past MJO Activity in Determining the Future State of the Midlatitude Circulation. <i>Journal of Climate</i> , <b>2020</b> , 33, 2131-2147	4.4	4
80	Moisture- Versus Wind-Dominated Flavors of Atmospheric Rivers. <i>Geophysical Research Letters</i> , <b>2020</b> , 47, e2020GL090042	4.9	7
79	North Pacific zonal wind response to sea ice loss in the Polar Amplification Model Intercomparison Project and its downstream implications. <i>Climate Dynamics</i> , <b>2020</b> , 55, 1779-1792	4.2	4
78	Physically Interpretable Neural Networks for the Geosciences: Applications to Earth System Variability. <i>Journal of Advances in Modeling Earth Systems</i> , <b>2020</b> , 12, e2019MS002002	7.1	45
77	New Insights on Subseasonal Arctic-Midlatitude Causal Connections from a Regularized Regression Model. <i>Journal of Climate</i> , <b>2020</b> , 33, 213-228	4.4	10
76	The Global Teleconnection Signature of the Madden-Julian Oscillation and Its Modulation by the Quasi-Biennial Oscillation. <i>Journal of Geophysical Research D: Atmospheres</i> , <b>2020</b> , 125, e2020JD032653	4.4	13
75	Past Variance and Future Projections of the Environmental Conditions Driving Western U.S. Summertime Wildfire Burn Area. <i>Earths Future</i> , <b>2020</b> , 9, e2020EF001645	7.9	12
74	A Role for Barotropic Eddy-Mean Flow Feedbacks in the Zonal Wind Response to Sea Ice Loss and Arctic Amplification. <i>Journal of Climate</i> , <b>2019</b> , 32, 7469-7481	4.4	3
73	Recent Warming of Landfalling Atmospheric Rivers Along the West Coast of the United States. <i>Journal of Geophysical Research D: Atmospheres</i> , <b>2019</b> , 124, 6810-6826	4.4	25
72	Quantifying Regional Sensitivities to Periodic Events: Application to the MJO. <i>Journal of Geophysical Research D: Atmospheres</i> , <b>2019</b> , 124, 3671-3683	4.4	6
71	The Future of Climate Epidemiology: Opportunities for Advancing Health Research in the Context of Climate Change. <i>American Journal of Epidemiology</i> , <b>2019</b> , 188, 866-872	3.8	15
70	Prediction of Northern Hemisphere Regional Surface Temperatures Using Stratospheric Ozone Information. <i>Journal of Geophysical Research D: Atmospheres</i> , <b>2019</b> , 124, 5922-5933	4.4	11
69	Tropospheric and Stratospheric Causal Pathways Between the MJO and NAO. <i>Journal of Geophysical Research D: Atmospheres</i> , <b>2019</b> , 124, 9356-9371	4.4	22
68	The Seasonality and Regionality of MJO Impacts on North American Temperature. <i>Geophysical Research Letters</i> , <b>2019</b> , 46, 9193-9202	4.9	5

67	Size of the Atmospheric Blocking Events: Scaling Law and Response to Climate Change. <i>Geophysical Research Letters</i> , <b>2019</b> , 46, 13488-13499	4.9	16
66	2018 International Atmospheric Rivers Conference: Multi-disciplinary studies and high-impact applications of atmospheric rivers. <i>Atmospheric Science Letters</i> , <b>2019</b> , 20, e935	2.4	4
65	Bridging the Weather-to-Climate Prediction Gap. <i>Eos</i> , <b>2019</b> , 100,	1.5	2
64	Thoughtfully Using Artificial Intelligence in Earth Science. <i>Eos</i> , <b>2019</b> , 100,	1.5	6
63	Viewing Forced Climate Patterns Through an AI Lens. <i>Geophysical Research Letters</i> , <b>2019</b> , 46, 13389-13398	4.9	40
62	ARTMIP-early start comparison of atmospheric river detection tools: how many atmospheric rivers hit northern California's Russian River watershed?. <i>Climate Dynamics</i> , <b>2019</b> , 52, 4973-4994	4.2	54
61	The Consistency of MJO Teleconnection Patterns: An Explanation Using Linear Rossby Wave Theory. <i>Journal of Climate</i> , <b>2019</b> , 32, 531-548	4.4	36
60	A study of links between the Arctic and the midlatitude jet stream using Granger and Pearl causality. <i>Environmetrics</i> , <b>2019</b> , 30, e2540	1.3	14
59	Skillful empirical subseasonal prediction of landfalling atmospheric river activity using the Madden-Julian oscillation and quasi-biennial oscillation. <i>Npj Climate and Atmospheric Science</i> , <b>2018</b> , 1,	8	84
58	Synoptic Formation of Double Tropopauses. <i>Journal of Geophysical Research D: Atmospheres</i> , <b>2018</b> , 123, 693-707	4.4	3
57	Primary Modes of Global Drop Size Distributions. <i>Journals of the Atmospheric Sciences</i> , <b>2018</b> , 75, 1453-1476	4.6	54
56	Memory Matters: A Case for Granger Causality in Climate Variability Studies. <i>Journal of Climate</i> , <b>2018</b> , 31, 3289-3300	4.4	51
55	Quantifying Isentropic Mixing Linked to Rossby Wave Breaking in a Modified Lagrangian Coordinate. <i>Journals of the Atmospheric Sciences</i> , <b>2018</b> , 75, 927-942	2.1	4
54	Prediction of the Midlatitude Response to Strong Madden-Julian Oscillation Events on S2S Time Scales. <i>Geophysical Research Letters</i> , <b>2018</b> , 45, 463-470	4.9	37
53	Modeled and Observed Multidecadal Variability in the North Atlantic Jet Stream and Its Connection to Sea Surface Temperatures. <i>Journal of Climate</i> , <b>2018</b> , 31, 8313-8338	4.4	34
52	A Barotropic Mechanism for the Response of Jet Stream Variability to Arctic Amplification and Sea Ice Loss. <i>Journal of Climate</i> , <b>2018</b> , 31, 7069-7085	4.4	16
51	Daily to Decadal Modulation of Jet Variability. <i>Journal of Climate</i> , <b>2018</b> , 31, 1297-1314	4.4	44
50	Skillful Subseasonal Forecasts of Weekly Tornado and Hail Activity Using the Madden-Julian Oscillation. <i>Journal of Geophysical Research D: Atmospheres</i> , <b>2018</b> , 123, 12,661	4.4	28

49	Environmental Conditions, Ignition Type, and Air Quality Impacts of Wildfires in the Southeastern and Western United States. <i>Earthis Future</i> , <b>2018</b> , 6, 1442-1456	7.9	19
48	Assessment of Numerical Weather Prediction Model Reforecasts of the Occurrence, Intensity, and Location of Atmospheric Rivers along the West Coast of North America. <i>Monthly Weather Review</i> , <b>2018</b> , 146, 3343-3362	2.4	20
47	Intraseasonal Periodicity in the Southern Hemisphere Circulation on Regional Spatial Scales. <i>Journals of the Atmospheric Sciences</i> , <b>2017</b> , 74, 865-877	2.1	5
46	Quantifying the role of land-atmosphere feedbacks in mediating near-surface temperature persistence. <i>Quarterly Journal of the Royal Meteorological Society</i> , <b>2017</b> , 143, 1620-1631	6.4	4
45	Seasonal Sensitivity of the Northern Hemisphere Jet Streams to Arctic Temperatures on Subseasonal Time Scales. <i>Journal of Climate</i> , <b>2017</b> , 30, 10117-10137	4.4	17
44	Quantifying the Lead Time Required for a Linear Trend to Emerge from Natural Climate Variability. <i>Journal of Climate</i> , <b>2017</b> , 30, 10179-10191	4.4	4
43	Advancing atmospheric river forecasts into subseasonal-to-seasonal time scales. <i>Geophysical Research Letters</i> , <b>2017</b> , 44, 7528-7536	4.9	76
42	A Census of Atmospheric Variability From Seconds to Decades. <i>Geophysical Research Letters</i> , <b>2017</b> , 44, 11,201	4.9	17
41	Working with Daily Climate Model Output Data in R and the futureheatwaves Package. <i>R Journal</i> , <b>2017</b> , 9, 124-137	3.3	1
40	Storm track processes and the opposing influences of climate change. <i>Nature Geoscience</i> , <b>2016</b> , 9, 656-663	6.3	240
39	Seasonal Sensitivity of the Eddy-Driven Jet to Tropospheric Heating in an Idealized AGCM. <i>Journal of Climate</i> , <b>2016</b> , 29, 5223-5240	4.4	32
38	Iisentropic transport and the seasonal cycle amplitude of CO <sub>2</sub> . <i>Journal of Geophysical Research D: Atmospheres</i> , <b>2016</b> , 121, 8106-8124	4.4	23
37	Modulation of atmospheric rivers near Alaska and the U.S. West Coast by northeast Pacific height anomalies. <i>Journal of Geophysical Research D: Atmospheres</i> , <b>2016</b> , 121, 12,751-12,765	4.4	38
36	Robust Wind and Precipitation Responses to the Mount Pinatubo Eruption, as Simulated in the CMIP5 Models. <i>Journal of Climate</i> , <b>2016</b> , 29, 4763-4778	4.4	23
35	The Influence of the Madden-Julian Oscillation on Northern Hemisphere Winter Blocking. <i>Journal of Climate</i> , <b>2016</b> , 29, 4597-4616	4.4	92
34	All-Season Climatology and Variability of Atmospheric River Frequencies over the North Pacific. <i>Journal of Climate</i> , <b>2016</b> , 29, 4885-4903	4.4	132
33	Detection of trends in surface ozone in the presence of climate variability. <i>Journal of Geophysical Research D: Atmospheres</i> , <b>2016</b> , 121, 6112-6129	4.4	32
32	Reconciling the observed and modeled Southern Hemisphere circulation response to volcanic eruptions. <i>Geophysical Research Letters</i> , <b>2016</b> , 43, 7259-7266	4.9	19

31	CMIP5 Projections of Arctic Amplification, of the North American/North Atlantic Circulation, and of Their Relationship. <i>Journal of Climate</i> , <b>2015</b> , 28, 5254-5271	4.4	147
30	Estimating Linear Trends: Simple Linear Regression versus Epoch Differences. <i>Journal of Climate</i> , <b>2015</b> , 28, 9969-9976	4.4	21
29	Quantifying the Role of Internal Climate Variability in Future Climate Trends. <i>Journal of Climate</i> , <b>2015</b> , 28, 6443-6456	4.4	112
28	Contrasting interannual and multidecadal NAO variability. <i>Climate Dynamics</i> , <b>2015</b> , 45, 539-556	4.2	95
27	The impact of Arctic warming on the midlatitude jet-stream: Can it? Has it? Will it?. <i>Wiley Interdisciplinary Reviews: Climate Change</i> , <b>2015</b> , 6, 277-286	8.4	244
26	Extreme moisture transport into the Arctic linked to Rossby wave breaking. <i>Journal of Geophysical Research D: Atmospheres</i> , <b>2015</b> , 120, 3774-3788	4.4	94
25	Influence of ENSO and the NAO on terrestrial carbon uptake in the Texas-northern Mexico region. <i>Global Biogeochemical Cycles</i> , <b>2015</b> , 29, 1247-1265	5.9	26
24	Periodic variability in the large-scale Southern Hemisphere atmospheric circulation. <i>Science</i> , <b>2014</b> , 343, 641-5	33.3	45
23	Exploring recent trends in Northern Hemisphere blocking. <i>Geophysical Research Letters</i> , <b>2014</b> , 41, 638-644	4.9	154
22	New-particle formation, growth and climate-relevant particle production in Egbert, Canada: analysis from 1 year of size-distribution observations. <i>Atmospheric Chemistry and Physics</i> , <b>2014</b> , 14, 8647-8663	6.8	40
21	Variability of moisture recycling using a precipitationshed framework. <i>Hydrology and Earth System Sciences</i> , <b>2014</b> , 18, 3937-3950	5.5	58
20	Comparing the Roles of Barotropic versus Baroclinic Feedbacks in the Atmosphere's Response to Mechanical Forcing. <i>Journals of the Atmospheric Sciences</i> , <b>2014</b> , 71, 177-194	2.1	15
19	Delayed Southern Hemisphere Climate Change Induced by Stratospheric Ozone Recovery, as Projected by the CMIP5 Models. <i>Journal of Climate</i> , <b>2014</b> , 27, 852-867	4.4	54
18	Behaviour of the winter North Atlantic eddy-driven jet stream in the CMIP3 integrations. <i>Climate Dynamics</i> , <b>2013</b> , 41, 995-1007	4.2	26
17	Revisiting the evidence linking Arctic amplification to extreme weather in midlatitudes. <i>Geophysical Research Letters</i> , <b>2013</b> , 40, 4734-4739	4.9	264
16	Connections between the Spring Breakup of the Southern Hemisphere Polar Vortex, Stationary Waves, and AirSea Roughness. <i>Journals of the Atmospheric Sciences</i> , <b>2013</b> , 70, 2137-2151	2.1	10
15	Response of the Midlatitude Jets, and of Their Variability, to Increased Greenhouse Gases in the CMIP5 Models. <i>Journal of Climate</i> , <b>2013</b> , 26, 7117-7135	4.4	312
14	Model projections of atmospheric steering of Sandy-like superstorms. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2013</b> , 110, 15211-5	11.5	24

13	Surface ozone variability and the jet position: Implications for projecting future air quality. <i>Geophysical Research Letters</i> , <b>2013</b> , 40, 2839-2844	4.9	51
12	Detection of Rossby wave breaking and its response to shifts of the midlatitude jet with climate change. <i>Journal of Geophysical Research</i> , <b>2012</b> , 117, n/a-n/a		65
11	A methodology for the comparison of blocking climatologies across indices, models and climate scenarios. <i>Climate Dynamics</i> , <b>2012</b> , 38, 2467-2481	4.2	94
10	Barotropic Impacts of Surface Friction on Eddy Kinetic Energy and Momentum Fluxes: An Alternative to the Barotropic Governor. <i>Journals of the Atmospheric Sciences</i> , <b>2012</b> , 69, 3028-3039	2.1	4
9	The Global Distribution of Atmospheric Eddy Length Scales. <i>Journal of Climate</i> , <b>2012</b> , 25, 3409-3416	4.4	12
8	Rossby Wave Scales, Propagation, and the Variability of Eddy-Driven Jets. <i>Journals of the Atmospheric Sciences</i> , <b>2011</b> , 68, 2893-2908	2.1	62
7	Dynamical Feedbacks and the Persistence of the NAO. <i>Journals of the Atmospheric Sciences</i> , <b>2010</b> , 67, 851-865	2.1	79
6	Dynamical Feedbacks of the Southern Annular Mode in Winter and Summer. <i>Journals of the Atmospheric Sciences</i> , <b>2010</b> , 67, 2320-2330	2.1	35
5	Effect of latitude on the persistence of eddy-driven jets. <i>Geophysical Research Letters</i> , <b>2010</b> , 37, n/a-n/a	4.9	31
4	Testing a theory for the effect of latitude on the persistence of eddy-driven jets using CMIP3 simulations. <i>Geophysical Research Letters</i> , <b>2010</b> , 37, n/a-n/a	4.9	36
3	Influence of eddy-driven jet latitude on North Atlantic jet persistence and blocking frequency in CMIP3 integrations. <i>Geophysical Research Letters</i> , <b>2010</b> , 37, n/a-n/a	4.9	46
2	Upscaling river biomass using dimensional analysis and hydrogeomorphic scaling. <i>Geophysical Research Letters</i> , <b>2007</b> , 34,	4.9	6
1	Scaling in river corridor widths depicts organization in valley morphology. <i>Geomorphology</i> , <b>2007</b> , 91, 198-215	4.5	25