

# Edwin P Gerber

## List of Publications by Year in descending order

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Version: 2024-02-01

64  
papers

4,208  
citations

87888

38  
h-index

133252

59  
g-index

79  
all docs

79  
docs citations

79  
times ranked

3468  
citing authors

#	ARTICLE	IF	CITATIONS
1	Introduction to the SPARC Reanalysis Intercomparison Project (S-RIP) and overview of the reanalysis systems. <i>Atmospheric Chemistry and Physics</i> , 2017, 17, 1417-1452.	4.9	276
2	On the lack of stratospheric dynamical variability in low-top versions of the CMIP5 models. <i>Journal of Geophysical Research D: Atmospheres</i> , 2013, 118, 2494-2505.	3.3	268
3	Impacts of the north and tropical Atlantic Ocean on the Antarctic Peninsula and sea ice. <i>Nature</i> , 2014, 505, 538-542.	27.8	238
4	Sudden Stratospheric Warmings. <i>Reviews of Geophysics</i> , 2021, 59, .	23.0	204
5	The predictability of the extratropical stratosphere on monthly time-scales and its impact on the skill of tropospheric forecasts. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2015, 141, 987-1003.	2.7	162
6	Assessing and Understanding the Impact of Stratospheric Dynamics and Variability on the Earth System. <i>Bulletin of the American Meteorological Society</i> , 2012, 93, 845-859.	3.3	146
7	A Mechanism and Simple Dynamical Model of the North Atlantic Oscillation and Annular Modes. <i>Journals of the Atmospheric Sciences</i> , 2004, 61, 264-280.	1.7	143
8	The Model Intercomparison Project on the climatic response to Volcanic forcing (VolMIP): experimental design and forcing input data for CMIP6. <i>Geoscientific Model Development</i> , 2016, 9, 2701-2719.	3.6	138
9	Northern winter climate change: Assessment of uncertainty in CMIP5 projections related to stratosphere-troposphere coupling. <i>Journal of Geophysical Research D: Atmospheres</i> , 2014, 119, 7979-7998.	3.3	131
10	Stratosphere-Troposphere Coupling in a Relatively Simple AGCM: The Importance of Stratospheric Variability. <i>Journal of Climate</i> , 2009, 22, 1920-1933.	3.2	126
11	Eddy-Zonal Flow Interactions and the Persistence of the Zonal Index. <i>Journals of the Atmospheric Sciences</i> , 2007, 64, 3296-3311.	1.7	108
12	Stratosphere-Troposphere coupling and annular mode variability in chemistry-climate models. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	107
13	The Effect of Tropospheric Jet Latitude on Coupling between the Stratospheric Polar Vortex and the Troposphere. <i>Journal of Climate</i> , 2013, 26, 2077-2095.	3.2	98
14	Isca, v1.0: a framework for the global modelling of the atmospheres of Earth and other planets at varying levels of complexity. <i>Geoscientific Model Development</i> , 2018, 11, 843-859.	3.6	97
15	Testing the Annular Mode Autocorrelation Time Scale in Simple Atmospheric General Circulation Models. <i>Monthly Weather Review</i> , 2008, 136, 1523-1536.	1.4	88
16	Local and hemispheric dynamics of the North Atlantic Oscillation, annular patterns and the zonal index. <i>Dynamics of Atmospheres and Oceans</i> , 2008, 44, 184-212.	1.8	85
17	Tropical teleconnection impacts on Antarctic climate changes. <i>Nature Reviews Earth &amp; Environment</i> , 2021, 2, 680-698.	29.7	85
18	Stratospheric influence on the tropospheric circulation revealed by idealized ensemble forecasts. <i>Geophysical Research Letters</i> , 2009, 36, .	4.0	84

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19	Understanding Hadley Cell Expansion versus Contraction: Insights from Simplified Models and Implications for Recent Observations. <i>Journal of Climate</i> , 2013, 26, 4304-4321.	3.2	81
20	Compensation between Resolved and Unresolved Wave Driving in the Stratosphere: Implications for Downward Control. <i>Journals of the Atmospheric Sciences</i> , 2013, 70, 3780-3798.	1.7	76
21	The Downward Influence of Sudden Stratospheric Warmings: Association with Tropospheric Precursors. <i>Journal of Climate</i> , 2019, 32, 85-108.	3.2	75
22	A Rossby Wave Bridge from the Tropical Atlantic to West Antarctica. <i>Journal of Climate</i> , 2015, 28, 2256-2273.	3.2	72
23	The role of stratosphere-troposphere coupling in the occurrence of extreme winter cold spells over northern Europe. <i>Journal of Advances in Modeling Earth Systems</i> , 2012, 4, .	3.8	69
24	Quantifying the Summertime Response of the Austral Jet Stream and Hadley Cell to Stratospheric Ozone and Greenhouse Gases. <i>Journal of Climate</i> , 2014, 27, 5538-5559.	3.2	62
25	Examining the Predictability of the Stratospheric Sudden Warming of January 2013 Using Multiple NWP Systems. <i>Monthly Weather Review</i> , 2016, 144, 1935-1960.	1.4	62
26	Model Hierarchies for Understanding Atmospheric Circulation. <i>Reviews of Geophysics</i> , 2019, 57, 250-280.	23.0	58
27	What Drives the Brewer-Dobson Circulation?. <i>Journals of the Atmospheric Sciences</i> , 2014, 71, 3837-3855.	1.7	57
28	Is the Brewer-Dobson circulation increasing or moving upward?. <i>Geophysical Research Letters</i> , 2016, 43, 1772-1779.	4.0	56
29	Rossby Waves Mediate Impacts of Tropical Oceans on West Antarctic Atmospheric Circulation in Austral Winter. <i>Journal of Climate</i> , 2015, 28, 8151-8164.	3.2	53
30	Stratospheric versus Tropospheric Control of the Strength and Structure of the Brewer-Dobson Circulation. <i>Journals of the Atmospheric Sciences</i> , 2012, 69, 2857-2877.	1.7	52
31	The Rain Is Askew: Two Idealized Models Relating Vertical Velocity and Precipitation Distributions in a Warming World. <i>Journal of Climate</i> , 2016, 29, 6445-6462.	3.2	50
32	Uncertainty in the Response of Sudden Stratospheric Warmings and Stratosphere-Troposphere Coupling to Quadrupled CO <sub>2</sub> Concentrations in CMIP6 Models. <i>Journal of Geophysical Research D: Atmospheres</i> , 2020, 125, e2019JD032345.	3.3	50
33	Optimizing the Definition of a Sudden Stratospheric Warming. <i>Journal of Climate</i> , 2018, 31, 2337-2344.	3.2	49
34	Untangling the Annual Cycle of the Tropical Tropopause Layer with an Idealized Moist Model. <i>Journal of Climate</i> , 2017, 30, 7339-7358.	3.2	48
35	A Stochastic Model for the Spatial Structure of Annular Patterns of Variability and the North Atlantic Oscillation. <i>Journal of Climate</i> , 2005, 18, 2102-2118.	3.2	45
36	The Building Blocks of Northern Hemisphere Wintertime Stationary Waves. <i>Journal of Climate</i> , 2020, 33, 5611-5633.	3.2	43

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37	Defining Sudden Stratospheric Warming in Climate Models: Accounting for Biases in Model Climatologies. <i>Journal of Climate</i> , 2017, 30, 5529-5546.	3.2	41
38	Sub-seasonal Predictability and the Stratosphere. , 2019, , 223-241.		41
39	On the Zonal Structure of the North Atlantic Oscillation and Annular Modes. <i>Journals of the Atmospheric Sciences</i> , 2009, 66, 332-352.	1.7	39
40	Seasonal Variability of the Polar Stratospheric Vortex in an Idealized AGCM with Varying Tropospheric Wave Forcing. <i>Journals of the Atmospheric Sciences</i> , 2015, 72, 2248-2266.	1.7	37
41	The Role of High-Latitude Waves in the Intraseasonal to Seasonal Variability of Tropical Upwelling in the Brewerâ€Dobson Circulation. <i>Journals of the Atmospheric Sciences</i> , 2013, 70, 1631-1648.	1.7	35
42	Quantifying the variability of the annular modes: reanalysis uncertainty vs. sampling uncertainty. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 17099-17117.	4.9	34
43	Constraining Future Summer Austral Jet Stream Positions in the CMIP5 Ensemble by Process-Oriented Multiple Diagnostic Regression*. <i>Journal of Climate</i> , 2016, 29, 673-687.	3.2	33
44	The Dynamics and Variability Model Intercomparison Project (DynVarMIP) for CMIP6: assessing the stratosphereâ€troposphere system. <i>Geoscientific Model Development</i> , 2016, 9, 3413-3425.	3.6	32
45	The Impact of Baroclinic Eddy Feedback on the Persistence of Jet Variability in the Two-Layer Model. <i>Journals of the Atmospheric Sciences</i> , 2014, 71, 410-429.	1.7	30
46	The strength of the meridional overturning circulation of the stratosphere. <i>Nature Geoscience</i> , 2017, 10, 663-667.	12.9	27
47	The Generic Nature of the Tropospheric Response to Sudden Stratospheric Warmings. <i>Journal of Climate</i> , 2020, 33, 5589-5610.	3.2	26
48	The Relationship between Age of Air and the Diabatic Circulation of the Stratosphere. <i>Journals of the Atmospheric Sciences</i> , 2016, 73, 4507-4518.	1.7	23
49	Abrupt Circulation Responses to Tropical Upper-Tropospheric Warming in a Relatively Simple Stratosphere-Resolving AGCM. <i>Journal of Climate</i> , 2012, 25, 4097-4115.	3.2	20
50	The Circulation Response to Volcanic Eruptions: The Key Roles of Stratospheric Warming and Eddy Interactions. <i>Journal of Climate</i> , 2019, 32, 1101-1120.	3.2	20
51	A QBO Cookbook: Sensitivity of the Quasiâ€Biennial Oscillation to Resolution, Resolved Waves, and Parameterized Gravity Waves. <i>Journal of Advances in Modeling Earth Systems</i> , 2022, 14, e2021MS002568.	3.8	16
52	Climate Processes: Clouds, Aerosols and Dynamics. , 2013, , 73-103.		15
53	Machine Learning Gravity Wave Parameterization Generalizes to Capture the QBO and Response to Increased CO <sub>2</sub> . <i>Geophysical Research Letters</i> , 2022, 49, .	4.0	15
54	Antarctic ozone depletion and trends in tropopause Rossby wave breaking. <i>Atmospheric Science Letters</i> , 2012, 13, 164-168.	1.9	13

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55	What Makes an Annular Mode “Annular”? <i>Journals of the Atmospheric Sciences</i> , 2017, 74, 317-332.	1.7	13
56	The Impact of SST Biases in the Tropical East Pacific and Agulhas Current Region on Atmospheric Stationary Waves in the Southern Hemisphere. <i>Journal of Climate</i> , 2020, 33, 9351-9374.	3.2	12
57	Numerical impacts on tracer transport: A proposed intercomparison test of Atmospheric General Circulation Models. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2020, 146, 3937-3964.	2.7	9
58	Nonlinear Interaction Between the Drivers of the Monsoon and Summertime Stationary Waves. <i>Geophysical Research Letters</i> , 2021, 48, e2020GL092321.	4.0	4
59	Is our dynamical understanding of the circulation changes associated with the Antarctic ozone hole sensitive to the choice of reanalysis dataset?. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 7451-7472.	4.9	3
60	Numerical impacts on tracer transport: Diagnosing the influence of dynamical core formulation and resolution on stratospheric transport. <i>Journals of the Atmospheric Sciences</i> , 2021, , .	1.7	3
61	Stratospheric Adiabatic Mixing Rates Derived From the Vertical Gradient of Age of Air. <i>Journal of Geophysical Research D: Atmospheres</i> , 2021, 126, .	3.3	3
62	Stratosphere and Its Coupling to the Troposphere and Beyond. , 2015, , 1418-1424.		2
63	Imagining Simpler Worlds to Understand the Complexity of Our Own. <i>Journal of Advances in Modeling Earth Systems</i> , 2019, 11, 2862-2867.	3.8	0
64	Downward Migration of the Zonal Mean Circulation in the Tropical Atmosphere. <i>Geophysical Research Letters</i> , 2020, 47, e2020GL088084.	4.0	0