Lorenzo M Polvani

List of Publications by Year
in descending order

201 papers	17,677 citations	15504 65 h-index	15732 125 g-index
230 all docs	230 docs citations	230 times ranked	10710 citing authors

#	Article	IF	Citations
1	The Community Earth System Model (CESM) Large Ensemble Project: A Community Resource for Studying Climate Change in the Presence of Internal Climate Variability. Bulletin of the American Meteorological Society, 2015, 96, 1333-1349.	3.3	1,723
2	The Community Earth System Model Version 2 (CESM2). Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS001916.	3.8	935
3	A New Look at Stratospheric Sudden Warmings. Part I: Climatology and Modeling Benchmarks. Journal of Climate, 2007, 20, 449-469.	3.2	833
4	Climate Change from 1850 to 2005 Simulated in CESM1(WACCM). Journal of Climate, 2013, 26, 7372-7391.	3.2	706
5	Stratospheric Ozone Depletion: The Main Driver of Twentieth-Century Atmospheric Circulation Changes in the Southern Hemisphere. Journal of Climate, 2011, 24, 795-812.	3.2	529
6	The Weak Temperature Gradient Approximation and Balanced Tropical Moisture Waves*. Journals of the Atmospheric Sciences, 2001, 58, 3650-3665.	1.7	504
7	The North Atlantic Oscillation: Past, present, and future. Proceedings of the National Academy of Sciences of the United States of America, 2001, 98, 12876-12877.	7.1	449
8	Response of the Midlatitude Jets, and of Their Variability, to Increased Greenhouse Gases in the CMIP5 Models. Journal of Climate, 2013, 26, 7117-7135.	3.2	380
9	Upward Wave Activity Flux as a Precursor to Extreme Stratospheric Events and Subsequent Anomalous Surface Weather Regimes. Journal of Climate, 2004, 17, 3548-3554.	3.2	355
10	EQUATORIAL SUPERROTATION ON TIDALLY LOCKED EXOPLANETS. Astrophysical Journal, 2011, 738, 71.	4.5	316
11	The Impact of Stratospheric Ozone Recovery on the Southern Hemisphere Westerly Jet. Science, 2008, 320, 1486-1489.	12.6	307
12	Impact of stratospheric ozone on Southern Hemisphere circulation change: A multimodel assessment. Journal of Geophysical Research, 2010, 115, .	3.3	280
13	Tropospheric response to stratospheric perturbations in a relatively simple general circulation model. Geophysical Research Letters, 2002, 29, 18-1.	4.0	274
14	On the lack of stratospheric dynamical variability in lowâ€top versions of the CMIP5 models. Journal of Geophysical Research D: Atmospheres, 2013, 118, 2494-2505.	3.3	268
15	The Whole Atmosphere Community Climate Model Version 6 (WACCM6). Journal of Geophysical Research D: Atmospheres, 2019, 124, 12380-12403.	3.3	261
16	Impact of Polar Ozone Depletion on Subtropical Precipitation. Science, 2011, 332, 951-954.	12.6	220
17	Climatology of intrusions into the tropical upper troposphere. Geophysical Research Letters, 2000, 27, 3857-3860.	4.0	206
18	Blocking precursors to stratospheric sudden warming events. Geophysical Research Letters, 2009, 36, .	4.0	198

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19	The emergence of jets and vortices in freely evolving, shallowâ€water turbulence on a sphere. Physics of Fluids, 1996, 8, 1531-1552.	4.0	191
20	CMIP5 Projections of Arctic Amplification, of the North American/North Atlantic Circulation, and of Their Relationship. Journal of Climate, 2015, 28, 5254-5271.	3.2	173
21	Stratosphereâ€"Troposphere Coupling in a Relatively Simple AGCM: The Role of Eddies. Journal of Climate, 2004, 17, 629-639.	3.2	171
22	Ozone hole and Southern Hemisphere climate change. Geophysical Research Letters, 2009, 36, .	4.0	167
23	What Is the Polar Vortex and How Does It Influence Weather?. Bulletin of the American Meteorological Society, 2017, 98, 37-44.	3.3	162
24	Arctic amplification of climate change: a review of underlying mechanisms. Environmental Research Letters, 2021, 16, 093003.	5.2	151
25	Assessing and Understanding the Impact of Stratospheric Dynamics and Variability on the Earth System. Bulletin of the American Meteorological Society, 2012, 93, 845-859.	3.3	146
26	Can natural variability explain observed Antarctic sea ice trends? New modeling evidence from CMIP5. Geophysical Research Letters, 2013, 40, 3195-3199.	4.0	143
27	Separating the stratospheric and tropospheric pathways of El NiÃ±oâ€"Southern Oscillation teleconnections. Environmental Research Letters, 2014, 9, 024014.	5.2	136
28	A New Look at Stratospheric Sudden Warmings. Part II: Evaluation of Numerical Model Simulations. Journal of Climate, 2007, 20, 470-488.	3.2	129
29	Climate system response to stratospheric ozone depletion and recovery. Quarterly Journal of the Royal Meteorological Society, 2014, 140, 2401-2419.	2.7	127
30	Stratosphereâ€"Troposphere Coupling in a Relatively Simple AGCM: The Importance of Stratospheric Variability. Journal of Climate, 2009, 22, 1920-1933.	3.2	126
31	A New Look at Stratospheric Sudden Warmings. Part III: Polar Vortex Evolution and Vertical Structure. Journal of Climate, 2009, 22, 1566-1585.	3.2	124
32	The Generation of Tripoles from Unstable Axisymmetric Isolated Vortex Structures. Europhysics Letters, 1989, 9, 339-344.	2.0	121
33	The coherent structures of shallowâ€water turbulence: Deformationâ€radius effects, cyclone/anticyclone asymmetry and gravityâ€wave generation. Chaos, 1994, 4, 177-186.	2.5	117
34	Antarctic climate response to stratospheric ozone depletion in a fine resolution ocean climate model. Geophysical Research Letters, 2012, 39, .	4.0	112
35	El NiÃ±o, La NiÃ±a, and stratospheric sudden warmings: A reevaluation in light of the observational record. Geophysical Research Letters, 2011, 38, n/a-n/a.	4.0	111
36	A pause in Southern Hemisphere circulation trends due to the Montreal Protocol. Nature, 2020, 579, 544-548.	27.8	106

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37	Large cancellation, due to ozone recovery, of future Southern Hemisphere atmospheric circulation trends. Geophysical Research Letters, 2011, 38, n/a-n/a.	4.0	105
38	Two-layer geostrophic vortex dynamics. Part 2. Alignment and two-layer V-states. Journal of Fluid Mechanics, 1991, 225, 241-270.	3.4	102
39	The Morphogenesis of Bands and Zonal Winds in the Atmospheres on the Giant Outer Planets. Science, 1996, 273, 335-337.	12.6	101
40	Wave and vortex dynamics on the surface of a sphere. Journal of Fluid Mechanics, 1993, 255, 35.	3.4	99
41	Forced-Dissipative Shallow-Water Turbulence on the Sphere and the Atmospheric Circulation of the Giant Planets. Journals of the Atmospheric Sciences, 2007, 64, 3158-3176.	1.7	97
42	The Effect of Lower Stratospheric Shear on Baroclinic Instability. Journals of the Atmospheric Sciences, 2007, 64, 479-496.	1.7	94
43	Historical forcings as main drivers of the Atlantic multidecadal variability in the CESM large ensemble. Climate Dynamics, 2018, 50, 3687-3698.	3.8	91
44	Two-layer geostrophic vortex dynamics. Part 1. Upper-layer V-states and merger. Journal of Fluid Mechanics, 1989, 205, 215.	3.4	88
45	Internal Variability of the Winter Stratosphere. Part I: Time-Independent Forcing. Journals of the Atmospheric Sciences, 2006, 63, 2758-2776.	1.7	88
46	Testing the Annular Mode Autocorrelation Time Scale in Simple Atmospheric General Circulation Models. Monthly Weather Review, 2008, 136, 1523-1536.	1.4	88
47	An initial-value problem for testing numerical models of the global shallow-water equations. Tellus, Series A: Dynamic Meteorology and Oceanography, 2004, 56, 429-440.	1.7	88
48	The response of midlatitude jets to increased CO₂: Distinguishing the roles of sea surface temperature and direct radiative forcing. Geophysical Research Letters, 2014, 41, 6863-6871.	4.0	86
49	An initial-value problem for testing numerical models of the global shallow-water equations. Tellus, Series A: Dynamic Meteorology and Oceanography, 2022, 56, 429.	1.7	84
50	Stratospheric influence on the tropospheric circulation revealed by idealized ensemble forecasts. Geophysical Research Letters, 2009, 36, .	4.0	84
51	Drivers of the Recent Tropical Expansion in the Southern Hemisphere: Changing SSTs or Ozone Depletion?. Journal of Climate, 2015, 28, 6581-6586.	3.2	83
52	Understanding Hadley Cell Expansion versus Contraction: Insights from Simplified Models and Implications for Recent Observations. Journal of Climate, 2013, 26, 4304-4321.	3.2	81
53	Revisiting the relationship between jet position, forced response, and annular mode variability in the southern midlatitudes. Geophysical Research Letters, 2016, 43, 2896-2903.	4.0	80
54	The Interannual Relationship between the Latitude of the Eddy-Driven Jet and the Edge of the Hadley Cell. Journal of Climate, 2011, 24, 563-568.	3.2	79

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55	On the surface impact of Arctic stratospheric ozone extremes. Environmental Research Letters, 2015, 10, 094003.	5.2	79
56	Distinguishing Stratospheric Sudden Warmings from ENSO as Key Drivers of Wintertime Climate Variability over the North Atlantic and Eurasia. Journal of Climate, 2017, 30, 1959-1969.	3.2	77
57	Southern Hemisphere Cloudâ€"Dynamics Biases in CMIP5 Models and Their Implications for Climate Projections. Journal of Climate, 2014, 27, 6074-6092.	3.2	76
58	Tropical climate responses to projected Arctic and Antarctic sea-ice loss. Nature Geoscience, 2020, 13, 275-281.	12.9	76
59	Stratospheric control of upward wave flux near the tropopause. Geophysical Research Letters, 2004, 31, .	4.0	75
60	Annular mode time scales in the Intergovernmental Panel on Climate Change Fourth Assessment Report models. Geophysical Research Letters, 2008, 35, .	4.0	75
61	Why might stratospheric sudden warmings occur with similar frequency in El NiÃ±o and La NiÃ±a winters?. Journal of Geophysical Research, 2012, 117, .	3.3	75
62	Midlatitude storms in a moister world: lessons from idealized baroclinic life cycle experiments. Climate Dynamics, 2013, 41, 787-802.	3.8	74
63	The fine-scale structure of the global tropopause derived from COSMIC GPS radio occultation measurements. Journal of Geophysical Research, 2011, 116, .	3.3	72
64	Delayed Southern Hemisphere Climate Change Induced by Stratospheric Ozone Recovery, as Projected by the CMIP5 Models. Journal of Climate, 2014, 27, 852-867.	3.2	71
65	The Matsunoâ€Gill model and equatorial superrotation. Geophysical Research Letters, 2010, 37, .	4.0	70
66	The Specified Chemistry Whole Atmosphere Community Climate Model (SCâ€WACCM). Journal of Advances in Modeling Earth Systems, 2014, 6, 883-901.	3.8	69
67	Is climate sensitivity related to dynamical sensitivity?. Journal of Geophysical Research D: Atmospheres, 2016, 121, 5159-5176.	3.3	69
68	Nonuniform Contribution of Internal Variability to Recent Arctic Sea Ice Loss. Journal of Climate, 2019, 32, 4039-4053.	3.2	69
69	The Impact of Stratospheric Ozone Recovery on Tropopause Height Trends. Journal of Climate, 2009, 22, 429-445.	3.2	68
70	Substantial twentieth-century Arctic warming caused by ozone-depleting substances. Nature Climate Change, 2020, 10, 130-133.	18.8	66
71	Observed Temperature Changes in the Troposphere and Stratosphere from 1979 to 2018. Journal of Climate, 2020, 33, 8165-8194.	3.2	66
72	The Three-Dimensional Structure of Breaking Rossby Waves in the Polar Wintertime Stratosphere. Journals of the Atmospheric Sciences, 2000, 57, 3663-3685.	1.7	65

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73	Simple Dynamical Models of Neptune's Great Dark Spot. Science, 1990, 249, 1393-1398.	12.6	62
74	Stratospheric ozone depletion: a key driver of recent precipitation trends in South Eastern South America. Climate Dynamics, 2014, 42, 1775-1792.	3.8	62
75	Recent Hadley cell expansion: The role of internal atmospheric variability in reconciling modeled and observed trends. Geophysical Research Letters, 2015, 42, 10,824.	4.0	62
76	Transport and mixing of chemical air masses in idealized baroclinic life cycles. Journal of Geophysical Research, 2007, 112, .	3.3	60
77	Stratospheric influence on baroclinic lifecycles and its connection to the Arctic Oscillation. Geophysical Research Letters, 2004, 31, .	4.0	59
78	Impact of the Tropopause Temperature on the Intensity of Tropical Cyclones: An Idealized Study Using a Mesoscale Model. Journals of the Atmospheric Sciences, 2014, 71, 4333-4348.	1.7	59
79	The ozone hole indirect effect: Cloudâ€radiative anomalies accompanying the poleward shift of the eddyâ€driven jet in the Southern Hemisphere. Geophysical Research Letters, 2013, 40, 3688-3692.	4.0	58
80	The Contour-Advective Semi-Lagrangian Algorithm for the Shallow Water Equations. Monthly Weather Review, 1999, 127, 1551-1565.	1.4	57
81	New observational evidence for a positive cloud feedback that amplifies the Atlantic Multidecadal Oscillation. Geophysical Research Letters, 2016, 43, 9852-9859.	4.0	57
82	The tripole: A new coherent vortex structure of incompressible two-dimensional flows. Geophysical and Astrophysical Fluid Dynamics, 1990, 51, 87-102.	1.2	56
83	Equatorial superrotation in shallow atmospheres. Geophysical Research Letters, 2008, 35, .	4.0	56
84	Midlatitude cloud shifts, their primary link to the Hadley cell, and their diverse radiative effects. Geophysical Research Letters, 2016, 43, 4594-4601.	4.0	55
85	Numerically Converged Solutions of the Global Primitive Equations for Testing the Dynamical Core of Atmospheric GCMs. Monthly Weather Review, 2004, 132, 2539-2552.	1.4	54
86	The surface impacts of Arctic stratospheric ozone anomalies. Environmental Research Letters, 2014, 9, 074015.	5.2	53
87	Troposphereâ€Stratosphere Temperature Trends Derived From Satellite Data Compared With Ensemble Simulations From WACCM. Journal of Geophysical Research D: Atmospheres, 2017, 122, 9651-9667.	3.3	51
88	Significant Weakening of Brewerâ€Dobson Circulation Trends Over the 21st Century as a Consequence of the Montreal Protocol. Geophysical Research Letters, 2018, 45, 401-409.	4.0	50
89	Uncertainty in the Response of Sudden Stratospheric Warmings and Stratosphereâ€Troposphere Coupling to Quadrupled CO₂ Concentrations in CMIP6 Models. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2019JD032345.	3.3	50
90	Uncertainty in Climate Change Projections of the Hadley Circulation: The Role of Internal Variability. Journal of Climate, 2013, 26, 7541-7554.	3.2	49

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91	Contrasting upper and lower atmospheric metrics of tropical expansion in the Southern Hemisphere. Geophysical Research Letters, 2016, 43, 10,496.	4.0	48
92	Identifying a human signal in the North Atlantic warming hole. Nature Communications, 2020, 11, 1540.	12.8	48
93	Time-Dependent Fully Nonlinear Geostrophic Adjustment. Journal of Physical Oceanography, 1997, 27, 1614-1634.	1.7	47
94	Stratospheric water vapor: an important climate feedback. Climate Dynamics, 2019, 53, 1697-1710.	3.8	47
95	The frequency and dynamics of stratospheric sudden warmings in the 21st century. Journal of Geophysical Research, 2008, 113, .	3.3	46
96	The roll-up of vorticity strips on the surface of a sphere. Journal of Fluid Mechanics, 1992, 234, 47.	3.4	45
97	The Coupled Stratosphereâ€“Troposphere Response to Impulsive Forcing from the Troposphere. Journals of the Atmospheric Sciences, 2005, 62, 3337-3352.	1.7	45
98	Improved seasonal forecast using ozone hole variability?. Geophysical Research Letters, 2013, 40, 6231-6235.	4.0	45
99	Mitigation of 21st century Antarctic sea ice loss by stratospheric ozone recovery. Geophysical Research Letters, 2012, 39, .	4.0	44
100	Contrasting the Antarctic and Arctic Atmospheric Responses to Projected Sea Ice Loss in the Late Twenty-First Century. Journal of Climate, 2018, 31, 6353-6370.	3.2	43
101	Insignificant influence of the 11-year solar cycle on the North Atlantic Oscillation. Nature Geoscience, 2019, 12, 94-99.	12.9	42
102	Opposite tropical circulation trends in climate models and in reanalyses. Nature Geoscience, 2019, 12, 528-532.	12.9	42
103	No robust evidence of future changes in major stratospheric sudden warmings: a multi-model assessment from CCMI. Atmospheric Chemistry and Physics, 2018, 18, 11277-11287.	4.9	41
104	Exploiting the Abrupt 4 Ã— CO₂ Scenario to Elucidate Tropical Expansion Mechanisms. Journal of Climate, 2019, 32, 859-875.	3.2	41
105	The impact of ozone depleting substances on the circulation, temperature, and salinity of the Southern Ocean: An attribution study with CESM1(WACCM). Geophysical Research Letters, 2015, 42, 5547-5555.	4.0	39
106	Spatial patterns of recent Antarctic surface temperature trends and the importance of natural variability: lessons from multiple reconstructions and the CMIP5 models. Climate Dynamics, 2017, 48, 2653-2670.	3.8	39
107	Nonlinear geostrophic adjustment, cyclone/anticyclone asymmetry, and potential vorticity rearrangement. Physics of Fluids, 2000, 12, 1087-1100.	4.0	38
108	Dynamical formation of an extra-tropical tropopause inversion layer in a relatively simple general circulation model. Geophysical Research Letters, 2007, 34, .	4.0	38

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109	Robust response of the Amundsen Sea Low to stratospheric ozone depletion. Geophysical Research Letters, 2016, 43, 8207-8213.	4.0	38
110	Isolating the roles of different forcing agents in global stratospheric temperature changes using model integrations with incrementally added single forcings. Journal of Geophysical Research D: Atmospheres, 2016, 121, 8067-8082.	3.3	38
111	Understanding the Time Scales of the Tropospheric Circulation Response to Abrupt CO₂ Forcing in the Southern Hemisphere: Seasonality and the Role of the Stratosphere. Journal of Climate, 2017, 30, 8497-8515.	3.2	38
112	Northern Hemisphere continental winter warming following the 1991 Mt.ÂPinatubo eruption: reconciling models and observations. Atmospheric Chemistry and Physics, 2019, 19, 6351-6366.	4.9	37
113	Arctic Amplification: A Rapid Response to Radiative Forcing. Geophysical Research Letters, 2020, 47, e2020GL089933.	4.0	37
114	Chaotic Lagrangian trajectories around an elliptical vortex patch embedded in a constant and uniform background shear flow. Physics of Fluids A, Fluid Dynamics, 1990, 2, 123-126.	1.6	36
115	The Impact of Ozone-Depleting Substances on Tropical Upwelling, as Revealed by the Absence of Lower-Stratospheric Cooling since the Late 1990s. Journal of Climate, 2017, 30, 2523-2534.	3.2	36
116	Is climate sensitivity related to dynamical sensitivity? A Southern Hemisphere perspective. Geophysical Research Letters, 2014, 41, 534-540.	4.0	34
117	CMIP5 models' shortwave cloud radiative response and climate sensitivity linked to the climatological Hadley cell extent. Geophysical Research Letters, 2017, 44, 5739-5748.	4.0	34
118	Barotropic vortex pairs on a rotating sphere. Journal of Fluid Mechanics, 1998, 358, 107-133.	3.4	33
119	Stratospheric ozone chemistry feedbacks are not critical for the determination of climate sensitivity in CESM1(WACCM). Geophysical Research Letters, 2016, 43, 3928-3934.	4.0	33
120	Stratospheric contraction caused by increasing greenhouse gases. Environmental Research Letters, 2021, 16, 064038.	5.2	33
121	Are recent Arctic ozone losses caused by increasing greenhouse gases?. Geophysical Research Letters, 2013, 40, 4437-4441.	4.0	32
122	The Response of the Ozone Layer to Quadrupled CO2 Concentrations. Journal of Climate, 2018, 31, 3893-3907.	3.2	32
123	On the Meridional Structure of Annular Modes. Journal of Climate, 2005, 18, 2119-2122.	3.2	31
124	Airâ€mass origin as a diagnostic of tropospheric transport. Journal of Geophysical Research D: Atmospheres, 2013, 118, 1459-1470.	3.3	31
125	Robust Wind and Precipitation Responses to the Mount Pinatubo Eruption, as Simulated in the CMIP5 Models. Journal of Climate, 2016, 29, 4763-4778.	3.2	30
126	Biases in southern hemisphere climate trends induced by coarsely specifying the temporal resolution of stratospheric ozone. Geophysical Research Letters, 2014, 41, 8602-8610.	4.0	29

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127	The United States â€œwarming holeâ€: Quantifying the forced aerosol response given large internal variability. Geophysical Research Letters, 2017, 44, 1928-1937.	4.0	29
128	The signature of ozone depletion on tropical temperature trends, as revealed by their seasonal cycle in model integrations with single forcings. Journal of Geophysical Research, 2012, 117, .	3.3	28
129	The Importance of the Montreal Protocol in Protecting Earthâ€™s Hydroclimate. Journal of Climate, 2013, 26, 4049-4068.	3.2	28
130	The Impact of Stratospheric Circulation Extremes on Minimum Arctic Sea Ice Extent. Journal of Climate, 2018, 31, 7169-7183.	3.2	28
131	Large Impacts, Past and Future, of Ozoneâ€Depleting Substances on Brewerâ€Dobson Circulation Trends: A Multimodel Assessment. Journal of Geophysical Research D: Atmospheres, 2019, 124, 6669-6680.	3.3	28
132	Robust winter warming over Eurasia under stratospheric sulfate geoengineering â€“ the role of stratospheric dynamics. Atmospheric Chemistry and Physics, 2021, 21, 6985-6997.	4.9	28
133	The Antarctic stratospheric sudden warming of 2002: A self-tuned resonance?. Geophysical Research Letters, 2006, 33, .	4.0	27
134	Reduced Southern Hemispheric circulation response to quadrupled CO₂ due to stratospheric ozone feedback. Geophysical Research Letters, 2017, 44, 465-474.	4.0	27
135	Linking midlatitudes eddy heat flux trends and polar amplification. Npj Climate and Atmospheric Science, 2020, 3, .	6.8	27
136	Reexamining the Relationship between Climate Sensitivity and the Southern Hemisphere Radiation Budget in CMIP Models. Journal of Climate, 2015, 28, 9298-9312.	3.2	26
137	New Insights on the Impact of Ozoneâ€Depleting Substances on the Brewerâ€Dobson Circulation. Journal of Geophysical Research D: Atmospheres, 2019, 124, 2435-2451.	3.3	26
138	The effect of interactive ozone chemistry on weak and strong stratospheric polar vortex events. Atmospheric Chemistry and Physics, 2020, 20, 10531-10544.	4.9	26
139	The vertical profile of recent tropical temperature trends: Persistent model biases in the context of internal variability. Environmental Research Letters, 2020, 15, 1040b4.	5.2	25
140	Dependence of modelâ€simulated response to ozone depletion on stratospheric polar vortex climatology. Geophysical Research Letters, 2017, 44, 6391-6398.	4.0	24
141	Stratospheric Ozone Depletion: An Unlikely Driver of the Regional Trends in Antarctic Sea Ice in Austral Fall in the Late Twentieth Century. Geophysical Research Letters, 2017, 44, 11,062.	4.0	24
142	Long-range prediction and the stratosphere. Atmospheric Chemistry and Physics, 2022, 22, 2601-2623.	4.9	24
143	A Very Large, Spontaneous Stratospheric Sudden Warming in a Simple AGCM: A Prototype for the Southern Hemisphere Warming of 2002?. Journals of the Atmospheric Sciences, 2005, 62, 890-897.	1.7	23
144	The Effect of Arctic Sea Ice Loss on the Hadley Circulation. Geophysical Research Letters, 2019, 46, 963-972.	4.0	23

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145	Double tropopause formation in idealized baroclinic life cycles: The key role of an initial tropopause inversion layer. Journal of Geophysical Research, 2011, 116, .	3.3	22
146	The Southern Ocean Sea Surface Temperature Response to Ozone Depletion: A Multimodel Comparison. Journal of Climate, 2019, 32, 5107-5121.	3.2	22
147	Anthropogenic impact on Antarctic surface mass balance, currently masked by natural variability, to emerge by mid-century. Environmental Research Letters, 2016, 11, 094001.	5.2	21
148	Robustness of the Simulated Tropospheric Response to Ozone Depletion. Journal of Climate, 2017, 30, 2577-2585.	3.2	21
149	Modeling evidence that ozone depletion has impacted extreme precipitation in the austral summer. Geophysical Research Letters, 2013, 40, 4054-4059.	4.0	20
150	Robust Arctic warming caused by projected Antarctic sea ice loss. Environmental Research Letters, 2020, 15, 104005.	5.2	20
151	Recent Trends in Extreme Precipitation and Temperature over Southeastern South America: The Dominant Role of Stratospheric Ozone Depletion in the CESM Large Ensemble. Journal of Climate, 2017, 30, 6433-6441.	3.2	19
152	Flux distributions as robust diagnostics of stratosphereâ€troposphere exchange. Journal of Geophysical Research, 2012, 117, .	3.3	18
153	Highly Significant Responses to Anthropogenic Forcings of the Midlatitude Jet in the Southern Hemisphere. Journal of Climate, 2016, 29, 3463-3470.	3.2	18
154	Waveâ€"vortex interaction in rotating shallow water. Part 1. One space dimension. Journal of Fluid Mechanics, 1999, 394, 1-27.	3.4	17
155	Distinguishing the impacts of ozone-depleting substances and well-mixed greenhouse gases on Arctic stratospheric ozone and temperature trends. Geophysical Research Letters, 2014, 41, 2652-2660.	4.0	17
156	The Response of the Ozone Layer to Quadrupled CO2 Concentrations: Implications for Climate. Journal of Climate, 2019, 32, 7629-7642.	3.2	17
157	Antarctic Sea Ice Expansion, Driven by Internal Variability, in the Presence of Increasing Atmospheric CO₂. Geophysical Research Letters, 2019, 46, 14762-14771.	4.0	17
158	Using Multiple Large Ensembles to Elucidate the Discrepancy Between the 1979â€"2019 Modeled and Observed Antarctic Sea Ice Trends. Geophysical Research Letters, 2020, 47, e2020GL088339.	4.0	16
159	The response of extratropical cyclones in the Southern Hemisphere to stratospheric ozone depletion in the 20th century. Atmospheric Science Letters, 2014, 15, 29-36.	1.9	15
160	Is interactive ozone chemistry important to represent polar cap stratospheric temperature variability in Earth-System Models?. Environmental Research Letters, 2019, 14, 044026.	5.2	15
161	Effective stability in a moist baroclinic wave. Atmospheric Science Letters, 2015, 16, 56-62.	1.9	14
162	The Importance of the Montreal Protocol in Mitigating the Potential Intensity of Tropical Cyclones. Journal of Climate, 2016, 29, 2275-2289.	3.2	14

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163	Large Increase in Incident Shortwave Radiation due to the Ozone Hole Offset by High Climatological Albedo over Antarctica. Journal of Climate, 2017, 30, 4883-4890.	3.2	14
164	Ocean Circulation Reduces the Hadley Cell Response to Increased Greenhouse Gases. Geophysical Research Letters, 2018, 45, 9197-9205.	4.0	14
165	Antarctic ozone depletion and trends in tropopause Rossby wave breaking. Atmospheric Science Letters, 2012, 13, 164-168.	1.9	13
166	Little evidence of reduced global tropical cyclone activity following recent volcanic eruptions. Npj Climate and Atmospheric Science, 2019, 2, .	6.8	13
167	Contrasting Recent Trends in Southern Hemisphere Westerlies Across Different Ocean Basins. Geophysical Research Letters, 2020, 47, e2020GL088890.	4.0	13
168	Scant evidence for a volcanically forced winter warming over Eurasia following the Krakatau eruption of August 1883. Atmospheric Chemistry and Physics, 2020, 20, 13687-13700.	4.9	13
169	Interannual SAM Modulation of Antarctic Sea Ice Extent Does Not Account for Its Longâ€Term Trends, Pointing to a Limited Role for Ozone Depletion. Geophysical Research Letters, 2021, 48, e2021GL094871.	4.0	12
170	Stronger Arctic amplification from ozone-depleting substances than from carbon dioxide. Environmental Research Letters, 2022, 17, 024010.	5.2	12
171	No Surface Cooling over Antarctica from the Negative Greenhouse Effect Associated with Instantaneous Quadrupling of CO2 Concentrations. Journal of Climate, 2018, 31, 317-323.	3.2	11
172	Separating and quantifying the distinct impacts of El NiÃ±o and sudden stratospheric warmings on North Atlantic and Eurasian wintertime climate. Atmospheric Science Letters, 2019, 20, e923.	1.9	11
173	A test case for the inviscid shallowâ€water equations on the sphere. Quarterly Journal of the Royal Meteorological Society, 2016, 142, 488-495.	2.7	10
174	Impact of the Montreal Protocol on Antarctic Surface Mass Balance and Implications for Global Sea Level Rise. Journal of Climate, 2017, 30, 7247-7253.	3.2	10
175	Elucidating the Mechanisms Responsible for Hadley Cell Weakening Under 4ÂÃ—ÂCO₂ Forcing. Geophysical Research Letters, 2021, 48, e2020GL090348.	4.0	10
176	Nonâ€Monotonic Response of the Climate System to Abrupt CO₂ Forcing. Geophysical Research Letters, 2021, 48, e2020GL090861.	4.0	10
177	Quantifying the role of ocean coupling in Arctic amplification and sea-ice loss over the 21st century. Npj Climate and Atmospheric Science, 2021, 4, .	6.8	10
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