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	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
2	Improved representation of atmospheric dynamics in <scp>CMIP6</scp> models removes climate sensitivity dependence on Hadley cell climatological extent. Atmospheric Science Letters, 2022, 23, e1073.	1.9	3
3	Stronger Arctic amplification from ozone-depleting substances than from carbon dioxide. Environmental Research Letters, 2022, 17, 024010.	5.2	12
4	Separating the Influences of Low-Latitude Warming and Sea Ice Loss on Northern Hemisphere Climate Change. Journal of Climate, 2022, 35, 2327-2349.	3.2	9
5	The future intensification of the North Atlantic winter storm track: the key role of dynamic ocean coupling. Journal of Climate, 2022, , 1-44.	3.2	1
6	Long-range prediction and the stratosphere. Atmospheric Chemistry and Physics, 2022, 22, 2601-2623.	4.9	24
7	Arctic amplification, and its seasonal migration, over a wide range of abrupt CO2 forcing. Npj Climate and Atmospheric Science, 2022, 5, .	6.8	10
8	Asymmetric Warming/Cooling Response to CO₂ Increase/Decrease Mainly Due To Nonâ€Logarithmic Forcing, Not Feedbacks. Geophysical Research Letters, 2022, 49, .	4.0	6
9	New Insights on the Radiative Impacts of Ozoneâ€Depleting Substances. Geophysical Research Letters, 2022, 49, .	4.0	6
10	Volcanic stratospheric injections up to 160â€‰Tg(S) yield a Eurasian winter warming indistinguishable from internal variability. Atmospheric Chemistry and Physics, 2022, 22, 8843-8862.	4.9	6
11	Elucidating the Mechanisms Responsible for Hadley Cell Weakening Under 4ÂÃ—ÂCO₂ Forcing. Geophysical Research Letters, 2021, 48, e2020GL090348.	4.0	10
12	Nonâ€Monotonic Response of the Climate System to Abrupt CO₂ Forcing. Geophysical Research Letters, 2021, 48, e2020GL090861.	4.0	10
13	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
14	Stratospheric contraction caused by increasing greenhouse gases. Environmental Research Letters, 2021, 16, 064038.	5.2	33
15	Modeling evidence for large, ENSO-driven interannual wintertime AMOC variability. Environmental Research Letters, 2021, 16, 084038.	5.2	5
16	Arctic amplification of climate change: a review of underlying mechanisms. Environmental Research Letters, 2021, 16, 093003.	5.2	151
17	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
18	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

#	Article	IF	Citations
19	How well do we know the surface impact of sudden stratospheric warmings?. Geophysical Research Letters, 2021, 48, e2021GL095493.	4.0	5
20	Low Antarctic continental climate sensitivity due to high ice sheet orography. Npj Climate and Atmospheric Science, 2020, 3, .	6.8	7
21	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
22	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
23	Nonâ€Additivity of the Midlatitude Circulation Response to Regional Arctic Temperature Anomalies: The Role of the Stratosphere. Geophysical Research Letters, 2020, 47, e2020GL088057.	4.0	0
24	Arctic Amplification: A Rapid Response to Radiative Forcing. Geophysical Research Letters, 2020, 47, e2020GL089933.	4.0	37
25	Contrasting Recent Trends in Southern Hemisphere Westerlies Across Different Ocean Basins. Geophysical Research Letters, 2020, 47, e2020GL088890.	4.0	13
26	Tropical climate responses to projected Arctic and Antarctic sea-ice loss. Nature Geoscience, 2020, 13, 275-281.	12.9	76
27	The Community Earth System Model Version 2 (CESM2). Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS001916.	3.8	935
28	A pause in Southern Hemisphere circulation trends due to the Montreal Protocol. Nature, 2020, 579, 544-548.	27.8	106
29	Identifying a human signal in the North Atlantic warming hole. Nature Communications, 2020, 11, 1540.	12.8	48
30	Linking midlatitudes eddy heat flux trends and polar amplification. Npj Climate and Atmospheric Science, 2020, 3, .	6.8	27
31	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
32	Substantial twentieth-century Arctic warming caused by ozone-depleting substances. Nature Climate Change, 2020, 10, 130-133.	18.8	66
33	Robust Arctic warming caused by projected Antarctic sea ice loss. Environmental Research Letters, 2020, 15, 104005.	5.2	20
34	Observed Temperature Changes in the Troposphere and Stratosphere from 1979 to 2018. Journal of Climate, 2020, 33, 8165-8194.	3.2	66
35	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
36	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

#	Article	IF	Citations
37	Distinguishing the impacts of ozone and ozone-depleting substances on the recent increase in Antarctic surface mass balance. Cryosphere, 2020, 14, 4135-4144.	3.9	3
38	The Southern Ocean Sea Surface Temperature Response to Ozone Depletion: A Multimodel Comparison. Journal of Climate, 2019, 32, 5107-5121.	3.2	22
39	Little evidence of reduced global tropical cyclone activity following recent volcanic eruptions. Npj Climate and Atmospheric Science, 2019, 2, .	6.8	13
40	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
41	The Whole Atmosphere Community Climate Model Version 6 (WACCM6). Journal of Geophysical Research D: Atmospheres, 2019, 124, 12380-12403.	3.3	261
42	Exploiting the Abrupt 4 Ã— CO₂ Scenario to Elucidate Tropical Expansion Mechanisms. Journal of Climate, 2019, 32, 859-875.	3.2	41
43	The Response of the Ozone Layer to Quadrupled CO2 Concentrations: Implications for Climate. Journal of Climate, 2019, 32, 7629-7642.	3.2	17
44	Insignificant influence of the 11-year solar cycle on the North Atlantic Oscillation. Nature Geoscience, 2019, 12, 94-99.	12.9	42
45	The Effect of Arctic Sea Ice Loss on the Hadley Circulation. Geophysical Research Letters, 2019, 46, 963-972.	4.0	23
46	Opposite tropical circulation trends in climate models and in reanalyses. Nature Geoscience, 2019, 12, 528-532.	12.9	42
47	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
48	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
49	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
50	Nonuniform Contribution of Internal Variability to Recent Arctic Sea Ice Loss. Journal of Climate, 2019, 32, 4039-4053.	3.2	69
51	Stratospheric water vapor: an important climate feedback. Climate Dynamics, 2019, 53, 1697-1710.	3.8	47
52	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
53	The Key Role of Ozone-Depleting Substances in Weakening the Walker Circulation in the Second Half of the Twentieth Century. Journal of Climate, 2019, 32, 1411-1418.	3.2	3
54	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

#	Article	IF	Citations
55	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
56	Significant Weakening of Breweră€Đobson Circulation Trends Over the 21st Century as a Consequence of the Montreal Protocol. Geophysical Research Letters, 2018, 45, 401-409.	4.0	50
57	Observational evidence of the downstream impact on tropical rainfall from stratospheric Kelvin waves. Climate Dynamics, 2018, 50, 3775-3782.	3.8	2
58	Historical forcings as main drivers of the Atlantic multidecadal variability in the CESM large ensemble. Climate Dynamics, 2018, 50, 3687-3698.	3.8	91
59	Model Uncertainty in Cloudâ€“Circulation Coupling, and Cloud-Radiative Response to Increasing CO₂, Linked to Biases in Climatological Circulation. Journal of Climate, 2018, 31, 10013-10020.	3.2	3
60	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
61	The Impact of Stratospheric Circulation Extremes on Minimum Arctic Sea Ice Extent. Journal of Climate, 2018, 31, 7169-7183.	3.2	28
62	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
63	Ocean Circulation Reduces the Hadley Cell Response to Increased Greenhouse Gases. Geophysical Research Letters, 2018, 45, 9197-9205.	4.0	14
64	The Response of the Ozone Layer to Quadrupled CO2 Concentrations. Journal of Climate, 2018, 31, 3893-3907.	3.2	32
65	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
66	What Is the Polar Vortex and How Does It Influence Weather?. Bulletin of the American Meteorological Society, 2017, 98, 37-44.	3.3	162
67	Reduced Southern Hemispheric circulation response to quadrupled CO₂ due to stratospheric ozone feedback. Geophysical Research Letters, 2017, 44, 465-474.	4.0	27
68	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
69	Robustness of the Simulated Tropospheric Response to Ozone Depletion. Journal of Climate, 2017, 30, 2577-2585.	3.2	21
70	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
71	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
72	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

#	ARTICLE	IF	CITATIONS
73	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
74	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
75	Dependence of modelâ€simulated response to ozone depletion on stratospheric polar vortex climatology. Geophysical Research Letters, 2017, 44, 6391-6398.	4.0	24
76	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
77	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
78	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
79	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
80	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
81	Highly Significant Responses to Anthropogenic Forcings of the Midlatitude Jet in the Southern Hemisphere. Journal of Climate, 2016, 29, 3463-3470.	3.2	18
82	Robust response of the Amundsen Sea Low to stratospheric ozone depletion. Geophysical Research Letters, 2016, 43, 8207-8213.	4.0	38
83	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
84	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
85	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
86	New observational evidence for a positive cloud feedback that amplifies the Atlantic Multidecadal Oscillation. Geophysical Research Letters, 2016, 43, 9852-9859.	4.0	57
87	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
88	Is climate sensitivity related to dynamical sensitivity?. Journal of Geophysical Research D: Atmospheres, 2016, 121, 5159-5176.	3.3	69
89	Contrasting upper and lower atmospheric metrics of tropical expansion in the Southern Hemisphere. Geophysical Research Letters, 2016, 43, 10,496.	4.0	48
90	Troposphereâ€stratosphere dynamical coupling in the southern high latitudes and its linkage to the Amundsen Sea. Journal of Geophysical Research D: Atmospheres, 2016, 121, 3776-3789.	3.3	8

#	Article	IF	Citations
91	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
92	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
93	The Importance of the Montreal Protocol in Mitigating the Potential Intensity of Tropical Cyclones. Journal of Climate, 2016, 29, 2275-2289.	3.2	14
94	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
95	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
96	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
97	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
98	On the surface impact of Arctic stratospheric ozone extremes. Environmental Research Letters, 2015, 10, 094003.	5.2	79
99	Contrasting Short- and Long-Term Projections of the Hydrological Cycle in the Southern Extratropics. Journal of Climate, 2015, 28, 5845-5856.	3.2	3
100	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
101	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
102	Effective stability in a moist baroclinic wave. Atmospheric Science Letters, 2015, 16, 56-62.	1.9	14
103	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
104	Is climate sensitivity related to dynamical sensitivity? A Southern Hemisphere perspective. Geophysical Research Letters, 2014, 41, 534-540.	4.0	34
105	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
106	The surface impacts of Arctic stratospheric ozone anomalies. Environmental Research Letters, 2014, 9, 074015.	5.2	53
107	Southern Hemisphere Cloudâ€"Dynamics Biases in CMIP5 Models and Their Implications for Climate Projections. Journal of Climate, 2014, 27, 6074-6092.	3.2	76
108	The Specified Chemistry Whole Atmosphere Community Climate Model (SCâ€WACCM). Journal of Advances in Modeling Earth Systems, 2014, 6, 883-901.	3.8	69

#	Article	IF	Citations
109	Separating the stratospheric and tropospheric pathways of El NiÃ±oâ€“Southern Oscillation teleconnections. Environmental Research Letters, 2014, 9, 024014.	5.2	136
110	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
111	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
112	Stratospheric ozone depletion: a key driver of recent precipitation trends in South Eastern South America. Climate Dynamics, 2014, 42, 1775-1792.	3.8	62
113	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
114	Climate system response to stratospheric ozone depletion and recovery. Quarterly Journal of the Royal Meteorological Society, 2014, 140, 2401-2419.	2.7	127
115	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
116	Seasonal ventilation of the stratosphere: Robust diagnostics from oneâ€way flux distributions. Journal of Geophysical Research D: Atmospheres, 2014, 119, 293-306.	3.3	7
117	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
118	Midlatitude storms in a moister world: lessons from idealized baroclinic life cycle experiments. Climate Dynamics, 2013, 41, 787-802.	3.8	74
119	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
120	Modeling evidence that ozone depletion has impacted extreme precipitation in the austral summer. Geophysical Research Letters, 2013, 40, 4054-4059.	4.0	20
121	Can natural variability explain observed Antarctic sea ice trends? New modeling evidence from CMIP5. Geophysical Research Letters, 2013, 40, 3195-3199.	4.0	143
122	Improved seasonal forecast using ozone hole variability?. Geophysical Research Letters, 2013, 40, 6231-6235.	4.0	45
123	Are recent Arctic ozone losses caused by increasing greenhouse gases?. Geophysical Research Letters, 2013, 40, 4437-4441.	4.0	32
124	The Antarctic Atmospheric Energy Budget. Part II: The Effect of Ozone Depletion and its Projected Recovery. Journal of Climate, 2013, 26, 9729-9744.	3.2	8
125	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
126	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

#	Article	IF	Citations
127	The Importance of the Montreal Protocol in Protecting Earthâ€™s Hydroclimate. Journal of Climate, 2013, 26, 4049-4068.	3.2	28
128	Uncertainty in Climate Change Projections of the Hadley Circulation: The Role of Internal Variability. Journal of Climate, 2013, 26, 7541-7554.	3.2	49
129	Climate Change from 1850 to 2005 Simulated in CESM1(WACCM). Journal of Climate, 2013, 26, 7372-7391.	3.2	706
130	Lifetime dependent flux into the lowermost stratosphere for idealized trace gases of surface origin. Journal of Geophysical Research D: Atmospheres, 2013, 118, 9367-9375.	3.3	1
131	Airâ€mass origin as a diagnostic of tropospheric transport. Journal of Geophysical Research D: Atmospheres, 2013, 118, 1459-1470.	3.3	31
132	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
133	Flux distributions as robust diagnostics of stratosphereâ€troposphere exchange. Journal of Geophysical Research, 2012, 117, .	3.3	18
134	Comment on "Tropospheric temperature response to stratospheric ozone recovery in the 21st century" by Hu et al. (2011). Atmospheric Chemistry and Physics, 2012, 12, 4893-4896.	4.9	4
135	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
136	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
137	Antarctic climate response to stratospheric ozone depletion in a fine resolution ocean climate model. Geophysical Research Letters, 2012, 39, .	4.0	112
138	Mitigation of 21st century Antarctic sea ice loss by stratospheric ozone recovery. Geophysical Research Letters, 2012, 39, .	4.0	44
139	Antarctic ozone depletion and trends in tropopause Rossby wave breaking. Atmospheric Science Letters, 2012, 13, 164-168.	1.9	13
140	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
141	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
142	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
143	The fine-scale structure of the global tropopause derived from COSMIC GPS radio occultation measurements. Journal of Geophysical Research, 2011, 116, .	3.3	72
144	Impact of Polar Ozone Depletion on Subtropical Precipitation. Science, 2011, 332, 951-954.	12.6	220

#	Article	IF	Citations
145	EQUATORIAL SUPERROTATION ON TIDALLY LOCKED EXOPLANETS. Astrophysical Journal, 2011, 738, 71.	4.5	316
146	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
147	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
148	The Matsunoâ€Gill model and equatorial superrotation. Geophysical Research Letters, 2010, 37, .	4.0	70
149	Impact of stratospheric ozone on Southern Hemisphere circulation change: A multimodel assessment. Journal of Geophysical Research, 2010, 115, .	3.3	280
150	The Impact of Stratospheric Ozone Recovery on Tropopause Height Trends. Journal of Climate, 2009, 22, 429-445.	3.2	68
151	Stratosphereâ€"Troposphere Coupling in a Relatively Simple AGCM: The Importance of Stratospheric Variability. Journal of Climate, 2009, 22, 1920-1933.	3.2	126
152	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
153	Ozone hole and Southern Hemisphere climate change. Geophysical Research Letters, 2009, 36, .	4.0	167
154	Stratospheric influence on the tropospheric circulation revealed by idealized ensemble forecasts. Geophysical Research Letters, 2009, 36, .	4.0	84
155	Blocking precursors to stratospheric sudden warming events. Geophysical Research Letters, 2009, 36, .	4.0	198
156	The frequency and dynamics of stratospheric sudden warmings in the 21st century. Journal of Geophysical Research, 2008, 113, .	3.3	46
157	Annular mode time scales in the Intergovernmental Panel on Climate Change Fourth Assessment Report models. Geophysical Research Letters, 2008, 35, .	4.0	75
158	Equatorial superrotation in shallow atmospheres. Geophysical Research Letters, 2008, 35, .	4.0	56
159	Testing the Annular Mode Autocorrelation Time Scale in Simple Atmospheric General Circulation Models. Monthly Weather Review, 2008, 136, 1523-1536.	1.4	88
160	Internal Variability of the Winter Stratosphere. Part II: Time-Dependent Forcing. Journals of the Atmospheric Sciences, 2008, 65, 2375-2388.	1.7	7
161	The Impact of Stratospheric Ozone Recovery on the Southern Hemisphere Westerly Jet. Science, 2008, 320, 1486-1489.	12.6	307
162	The Effect of Lower Stratospheric Shear on Baroclinic Instability. Journals of the Atmospheric Sciences, 2007, 64, 479-496.	1.7	94

#	Article	IF	Citations
163	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
164	A New Look at Stratospheric Sudden Warmings. Part I: Climatology and Modeling Benchmarks. Journal of Climate, 2007, 20, 449-469.	3.2	833
165	A New Look at Stratospheric Sudden Warmings. Part II: Evaluation of Numerical Model Simulations. Journal of Climate, 2007, 20, 470-488.	3.2	129
166	Dynamical formation of an extra-tropical tropopause inversion layer in a relatively simple general circulation model. Geophysical Research Letters, 2007, 34, .	4.0	38
167	Transport and mixing of chemical air masses in idealized baroclinic life cycles. Journal of Geophysical Research, 2007, 112, .	3.3	60
168	The Antarctic stratospheric sudden warming of 2002: A self-tuned resonance?. Geophysical Research Letters, 2006, 33, .	4.0	27
169	Internal Variability of the Winter Stratosphere. Part I: Time-Independent Forcing. Journals of the Atmospheric Sciences, 2006, 63, 2758-2776.	1.7	88
170	Asymptotic solutions of the axisymmetric moist Hadley circulation in a model with two vertical modes. Theoretical and Computational Fluid Dynamics, 2006, 20, 443-467.	2.2	7
171	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
172	The Coupled Stratosphereâ€“Troposphere Response to Impulsive Forcing from the Troposphere. Journals of the Atmospheric Sciences, 2005, 62, 3337-3352.	1.7	45
173	On the Meridional Structure of Annular Modes. Journal of Climate, 2005, 18, 2119-2122.	3.2	31
174	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
175	Stratospheric control of upward wave flux near the tropopause. Geophysical Research Letters, 2004, 31, .	4.0	75
176	Stratospheric influence on baroclinic lifecycles and its connection to the Arctic Oscillation. Geophysical Research Letters, 2004, 31, .	4.0	59
177	Stratosphereâ€“Troposphere Coupling in a Relatively Simple AGCM: The Role of Eddies. Journal of Climate, 2004, 17, 629-639.	3.2	171
178	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
179	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
180	Tropospheric response to stratospheric perturbations in a relatively simple general circulation model. Geophysical Research Letters, 2002, 29, 18-1.	4.0	274

#	Article	IF	Citations
181	The Weak Temperature Gradient Approximation and Balanced Tropical Moisture Waves*. Journals of the Atmospheric Sciences, 2001, 58, 3650-3665.	1.7	504
182	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
183	Nonlinear geostrophic adjustment, cyclone/anticyclone asymmetry, and potential vorticity rearrangement. Physics of Fluids, 2000, 12, 1087-1100.	4.0	38
184	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
185	Climatology of intrusions into the tropical upper troposphere. Geophysical Research Letters, 2000, 27, 3857-3860.	4.0	206
186	On the mix-down times of dynamically active potential vorticity filaments. Geophysical Research Letters, 1999, 26, 2953-2956.	4.0	3
187	The Contour-Advective Semi-Lagrangian Algorithm for the Shallow Water Equations. Monthly Weather Review, 1999, 127, 1551-1565.	1.4	57
188	Waveâ€"vortex interaction in rotating shallow water. Part 1. One space dimension. Journal of Fluid Mechanics, 1999, 394, 1-27.	3.4	17
189	Barotropic vortex pairs on a rotating sphere. Journal of Fluid Mechanics, 1998, 358, 107-133.	3.4	33
190	Time-Dependent Fully Nonlinear Geostrophic Adjustment. Journal of Physical Oceanography, 1997, 27, 1614-1634.	1.7	47
191	The Morphogenesis of Bands and Zonal Winds in the Atmospheres on the Giant Outer Planets. Science, 1996, 273, 335-337.	12.6	101
192	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
193	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
194	Wave and vortex dynamics on the surface of a sphere. Journal of Fluid Mechanics, 1993, 255, 35.	3.4	99
195	The roll-up of vorticity strips on the surface of a sphere. Journal of Fluid Mechanics, 1992, 234, 47.	3.4	45
196	Two-layer geostrophic vortex dynamics. Part 2. Alignment and two-layer V-states. Journal of Fluid Mechanics, 1991, 225, 241-270.	3.4	102
197	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
198	Simple Dynamical Models of Neptune's Great Dark Spot. Science, 1990, 249, 1393-1398.	12.6	62

#	Article	IF	Citations
199	The tripole: A new coherent vortex structure of incompressible two-dimensional flows. Geophysical and Astrophysical Fluid Dynamics, 1990, 51, 87-102.	1.2	56
200	Two-layer geostrophic vortex dynamics. Part 1. Upper-layer V-states and merger. Journal of Fluid Mechanics, 1989, 205, 215.	3.4	88
201	The Generation of Tripoles from Unstable Axisymmetric Isolated Vortex Structures. Europhysics Letters, 1989, 9, 339-344.	2.0	121