

Wenshou Tian

List of Publications by Year in descending order

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Version: 2024-02-01

77
papers

1,927
citations

279798

23
h-index

315739

38
g-index

78
all docs

78
docs citations

78
times ranked

1493
citing authors

#	ARTICLE	IF	CITATIONS
1	Persistent shift of the Arctic polar vortex towards the Eurasian continent in recent decades. <i>Nature Climate Change</i> , 2016, 6, 1094-1099.	18.8	207
2	Recent strengthening of the stratospheric Arctic vortex response to warming in the central North Pacific. <i>Nature Communications</i> , 2018, 9, 1697.	12.8	86
3	A new coupled chemistry-climate model for the stratosphere: The importance of coupling for future O ₃ -climate predictions. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2005, 131, 281-303.	2.7	81
4	A connection from Arctic stratospheric ozone to El Niño-Southern oscillation. <i>Environmental Research Letters</i> , 2016, 11, 124026.	5.2	80
5	Stratospheric ozone loss over the Eurasian continent induced by the polar vortex shift. <i>Nature Communications</i> , 2018, 9, 206.	12.8	69
6	Effects of the Tibetan Plateau on total column ozone distribution. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 2022, 60, 622.	1.6	68
7	The Influence of ENSO on Northern Midlatitude Ozone during the Winter to Spring Transition. <i>Journal of Climate</i> , 2015, 28, 4774-4793.	3.2	60
8	Quasi-biennial oscillation and tracer distributions in a coupled chemistry-climate model. <i>Journal of Geophysical Research</i> , 2006, 111, .	3.3	59
9	The relative impacts of El Niño Modoki, canonical El Niño, and QBO on tropical ozone changes since the 1980s. <i>Environmental Research Letters</i> , 2014, 9, 064020.	5.2	59
10	Variations in North Pacific sea surface temperature caused by Arctic stratospheric ozone anomalies. <i>Environmental Research Letters</i> , 2017, 12, 114023.	5.2	49
11	Impacts of stratospheric ozone depletion and recovery on wave propagation in the boreal winter stratosphere. <i>Journal of Geophysical Research D: Atmospheres</i> , 2015, 120, 8299-8317.	3.3	48
12	Effects of meridional sea surface temperature changes on stratospheric temperature and circulation. <i>Advances in Atmospheric Sciences</i> , 2014, 31, 888-900.	4.3	45
13	Radiative effect of ozone change on stratosphere-troposphere exchange. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	42
14	Impact of increasing stratospheric water vapor on ozone depletion and temperature change. <i>Advances in Atmospheric Sciences</i> , 2009, 26, 423-437.	4.3	40
15	Increasing trend of lightning activity in the South Asia region. <i>Science Bulletin</i> , 2021, 66, 78-84.	9.0	38
16	The impacts of two types of El Niño on global ozone variations in the last three decades. <i>Advances in Atmospheric Sciences</i> , 2014, 31, 1113-1126.	4.3	37
17	Northern hemisphere cold air outbreaks are more likely to be severe during weak polar vortex conditions. <i>Communications Earth & Environment</i> , 2021, 2, .	6.8	37
18	Climate warming and decreasing total column ozone over the Tibetan Plateau during winter and spring. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 2022, 66, 23415.	1.6	35

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19	The connection between extreme stratospheric polar vortex events and tropospheric blockings. Quarterly Journal of the Royal Meteorological Society, 2017, 143, 1148-1164.	2.7	32
20	Indo-Pacific Warm Pool Area Expansion, Modoki Activity and Tropical Cold-Point Tropopause Temperature Variations. Scientific Reports, 2014, 4, 4552.	3.3	31
21	Preconditioning of Arctic Stratospheric Polar Vortex Shift Events. Journal of Climate, 2018, 31, 5417-5436.	3.2	31
22	Eurasian Cold Air Outbreaks under Different Arctic Stratospheric Polar Vortex Strengths. Journals of the Atmospheric Sciences, 2019, 76, 1245-1264.	1.7	29
23	Longitudinal Asymmetric Trends of Tropical Cold-Point Tropopause Temperature and Their Link to Strengthened Walker Circulation. Journal of Climate, 2016, 29, 7755-7771.	3.2	25
24	The Corresponding Tropospheric Environments during Downward-Extending and Nondownward-Extending Events of Stratospheric Northern Annular Mode Anomalies. Journal of Climate, 2019, 32, 1857-1873.	3.2	25
25	An advanced impact of Arctic stratospheric ozone changes on spring precipitation in China. Climate Dynamics, 2018, 51, 4029-4041.	3.8	24
26	Impact of Sea Ice Reduction in the Barents and Kara Seas on the Variation of the East Asian Trough in Late Winter. Journal of Climate, 2021, 34, 1081-1097.	3.2	24
27	Observations and Numerical Simulation of Atmospheric Cellular Convection over Mesoscale Topography. Monthly Weather Review, 2003, 131, 222-235.	1.4	24
28	A study of upper troposphere and lower stratosphere water vapor above the Tibetan Plateau using AIRS and MLS data. Atmospheric Science Letters, 2011, 12, 233-239.	1.9	22
29	The connection between the second leading mode of the winter North Pacific sea surface temperature anomalies and stratospheric sudden warming events. Climate Dynamics, 2018, 51, 581-595.	3.8	22
30	A Modeling Study and Scaling Analysis of Orographic Effects on Boundary Layer Shallow Convection. Journals of the Atmospheric Sciences, 2003, 60, 1981-1991.	1.7	19
31	Influence of the El Niño southern oscillation on the total ozone column and clear-sky ultraviolet radiation over China. Atmospheric Environment, 2015, 120, 205-216.	4.1	19
32	Effect of Madden-Julian Oscillation Occurrence Frequency on the Interannual Variability of Northern Hemisphere Stratospheric Wave Activity in Winter. Journal of Climate, 2018, 31, 5031-5049.	3.2	19
33	Zonally asymmetric trends of winter total column ozone in the northern middle latitudes. Climate Dynamics, 2019, 52, 4483-4500.	3.8	19
34	Effects of stratosphere-troposphere chemistry coupling on tropospheric ozone. Journal of Geophysical Research, 2010, 115, .	3.3	17
35	Solar impacts on decadal variability of tropopause temperature and lower stratospheric (LS) water vapour: a mechanism through ocean-atmosphere coupling. Climate Dynamics, 2019, 52, 5585-5604.	3.8	17
36	Effects of sea surface temperature and greenhouse gas changes on the transport between the stratosphere and troposphere. Journal of Geophysical Research, 2011, 116, .	3.3	16

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37	Effects of Arctic stratospheric ozone changes on spring precipitation in the northwestern United States. <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 861-875.	4.9	16
38	Stratospheric water vapor trends in a coupled chemistry-climate model. <i>Geophysical Research Letters</i> , 2006, 33, .	4.0	15
39	Simulations of the effects of surface heat flux anomalies on stratification, convective growth, and vertical transport within the Saharan boundary layer. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	15
40	Effects of the Quasi-Biennial Oscillation and Stratospheric Semiannual Oscillation on Tracer Transport in the Upper Stratosphere. <i>Journals of the Atmospheric Sciences</i> , 2013, 70, 1370-1389.	1.7	15
41	A Large Eddy Model Study on the Effect of Overshooting Convection on Lower Stratospheric Water Vapor. <i>Journal of Geophysical Research D: Atmospheres</i> , 2018, 123, 10,023.	3.3	15
42	Role of the quasi-biennial oscillation in the downward extension of stratospheric northern annular mode anomalies. <i>Climate Dynamics</i> , 2020, 55, 595-612.	3.8	15
43	Regional trends of lightning activity in the tropics and subtropics. <i>Atmospheric Research</i> , 2020, 242, 104960.	4.1	15
44	Cross-tropopause mass exchange associated with a tropopause fold event over the northeastern Tibetan Plateau. <i>Advances in Atmospheric Sciences</i> , 2010, 27, 1344-1360.	4.3	14
45	Influence of the Arctic Oscillation on the Vertical Distribution of Wintertime Ozone in the Stratosphere and Upper Troposphere over the Northern Hemisphere. <i>Journal of Climate</i> , 2017, 30, 2905-2919.	3.2	14
46	Large Uncertainties in Estimation of Tropical Tropopause Temperature Variabilities Due to Model Vertical Resolution. <i>Geophysical Research Letters</i> , 2019, 46, 10043-10052.	4.0	14
47	Comparisons of AGRI/FY-4A Cloud Fraction and Cloud Top Pressure with MODIS/Terra Measurements over East Asia. <i>Journal of Meteorological Research</i> , 2019, 33, 705-719.	2.4	14
48	The Influence of Zonally Asymmetric Stratospheric Ozone Changes on the Arctic Polar Vortex Shift. <i>Journal of Climate</i> , 2020, 33, 4641-4658.	3.2	14
49	Impacts of stratospheric polar vortex changes on wintertime precipitation over the northern hemisphere. <i>Climate Dynamics</i> , 2022, 58, 3155-3171.	3.8	14
50	Characteristics of stratosphere-troposphere exchange during the Meiyu season. <i>Journal of Geophysical Research D: Atmospheres</i> , 2013, 118, 2058-2072.	3.3	13
51	Climatology of cross-tropopause mass exchange over the Tibetan Plateau and its surroundings. <i>International Journal of Climatology</i> , 2017, 37, 3999-4014.	3.5	12
52	Different impact of central Pacific and eastern Pacific El Niño on the duration of sudden stratospheric warming. <i>Advances in Atmospheric Sciences</i> , 2017, 34, 771-782.	4.3	12
53	Attribution of the Hemispheric Asymmetries in Trends of Stratospheric Trace Gases Inferred From Microwave Limb Sounder (MLS) Measurements. <i>Journal of Geophysical Research D: Atmospheres</i> , 2019, 124, 6283-6293.	3.3	12
54	Signatures of the Arctic Stratospheric Ozone in Northern Hadley Circulation Extent and Subtropical Precipitation. <i>Geophysical Research Letters</i> , 2019, 46, 12340-12349.	4.0	12

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55	Analysis of convective and stratiform precipitation characteristics in the summers of 2014–2019 over Northwest China based on GPM observations. <i>Atmospheric Research</i> , 2021, 262, 105762.	4.1	12
56	The relationship between lower-stratospheric ozone at southern high latitudes and sea surface temperature in the East Asian marginal seas in austral spring. <i>Atmospheric Chemistry and Physics</i> , 2017, 17, 6705-6722.	4.9	11
57	Connections between Spring Arctic Ozone and the Summer Circulation and Sea Surface Temperatures over the Western North Pacific. <i>Journal of Climate</i> , 2020, 33, 2907-2923.	3.2	11
58	Distinct Tropospheric and Stratospheric Mechanisms Linking Historical Barents–Kara Sea–Ice Loss and Late Winter Eurasian Temperature Variability. <i>Geophysical Research Letters</i> , 2021, 48, e2021GL095262.	4.0	11
59	Interannual Variations in Lower Stratospheric Ozone During the Period 1984–2016. <i>Journal of Geophysical Research D: Atmospheres</i> , 2019, 124, 8225-8241.	3.3	10
60	Increase in Lower Stratospheric Water Vapor in the Past 100 Years Related to Tropical Atlantic Warming. <i>Geophysical Research Letters</i> , 2020, 47, e2020GL090539.	4.0	10
61	Surface ocean current variations in the North Pacific related to Arctic stratospheric ozone. <i>Climate Dynamics</i> , 2022, 59, 3087-3111.	3.8	9
62	Properties of a simulated convective boundary layer over inhomogeneous vegetation. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2011, 137, 99-117.	2.7	7
63	Stratospheric Influence on the Development of the 2018 Late Winter European Cold Air Outbreak. <i>Journal of Geophysical Research D: Atmospheres</i> , 2022, 127, .	3.3	6
64	Weakening of Antarctic stratospheric planetary wave activities in early austral spring since the early 2000s: a response to sea surface temperature trends. <i>Atmospheric Chemistry and Physics</i> , 2022, 22, 1575-1600.	4.9	5
65	Effect of methane emission increases in East Asia on atmospheric circulation and ozone. <i>Advances in Atmospheric Sciences</i> , 2015, 32, 1617-1627.	4.3	4
66	The effects of stratospheric meridional circulation on surface pressure and tropospheric meridional circulation. <i>Climate Dynamics</i> , 2019, 53, 6961-6977.	3.8	4
67	A Quantitative Estimation of the Transport of Surface Emissions from Different Regions into the Stratosphere. <i>Scientific Online Letters on the Atmosphere</i> , 2016, 12, 65-69.	1.4	3
68	The Variations in Middle and Upper Stratospheric Water Vapour over the Past Two Decades. <i>Scientific Online Letters on the Atmosphere</i> , 2016, 12, 127-134.	1.4	3
69	Enhanced upward motion through the troposphere over the tropical western Pacific and its implications for the transport of trace gases from the troposphere to the stratosphere. <i>Atmospheric Chemistry and Physics</i> , 2022, 22, 4393-4411.	4.9	3
70	Direct and indirect effects of solar variations on stratospheric ozone and temperature. <i>Science Bulletin</i> , 2013, 58, 3840-3846.	1.7	2
71	Diagnosing Mixing Properties in Model Simulations for CH ₄ in the Stratosphere. <i>Journal of Geophysical Research D: Atmospheres</i> , 2020, 125, e2020JD032524.	3.3	2
72	Model study of the impacts of emissions, chemical and dynamical processes on the CO variability in the tropical upper troposphere and lower stratosphere. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 2015, 67, 27475.	1.6	2

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73	A commentary of “Antarctic ozone layer is gradually recovering” in 10 remarkable discoveries from 2020 in Nature. Fundamental Research, 2022, 2, 337-338.	3.3	2
74	Changes in the Relationship between ENSO and the Winter Arctic Stratospheric Polar Vortex in Recent Decades. Journal of Climate, 2022, 35, 5399-5414.	3.2	2
75	Contrasting Effects of Indian Ocean Basin and Dipole Modes on the Stratosphere. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2021JD035156.	3.3	1
76	The Spatiotemporal Patterns of the Upper-Tropospheric Water Vapor over the Tibetan Plateau in Summer Based on EOF Analysis. Journal of Climate, 2022, 35, 5033-5051.	3.2	1
77	A differential optical absorption spectroscopy method for X_{CO_2} retrieval from ground-based Fourier transform spectrometers measurements of the direct solar beam. Advances in Atmospheric Sciences, 2015, 32, 1119-1128.	4.3	0