

Tianliang Zhao

List of Publications by Year in descending order

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95
papers

3,118
citations

186265

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times ranked

2862
citing authors

#	ARTICLE	IF	CITATIONS
1	Fine particulate matter (PM _{2.5}) trends in China, 2013–2018: separating contributions from anthropogenic emissions and meteorology. <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 11031-11041.	4.9	442
2	Significant changes in the chemical compositions and sources of PM _{2.5} in Wuhan since the city lockdown as COVID-19. <i>Science of the Total Environment</i> , 2020, 739, 140000.	8.0	173
3	A climatology of aerosol optical depth over China from recent 10 years of MODIS remote sensing data. <i>International Journal of Climatology</i> , 2014, 34, 863-870.	3.5	141
4	Control of particulate nitrate air pollution in China. <i>Nature Geoscience</i> , 2021, 14, 389-395.	12.9	139
5	The two-way feedback mechanism between unfavorable meteorological conditions and cumulative aerosol pollution in various haze regions of China. <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 3287-3306.	4.9	97
6	A modelling study of the terrain effects on haze pollution in the Sichuan Basin. <i>Atmospheric Environment</i> , 2019, 196, 77-85.	4.1	97
7	Inverse Relations of PM _{2.5} and O ₃ in Air Compound Pollution between Cold and Hot Seasons over an Urban Area of East China. <i>Atmosphere</i> , 2017, 8, 59.	2.3	92
8	Importance of meteorology in air pollution events during the city lockdown for COVID-19 in Hubei Province, Central China. <i>Science of the Total Environment</i> , 2021, 754, 142227.	8.0	82
9	The impacts of pollution control measures on PM _{2.5} reduction: Insights of chemical composition, source variation and health risk. <i>Atmospheric Environment</i> , 2019, 197, 103-117.	4.1	63
10	The moving of high emission for biomass burning in China: View from multi-year emission estimation and human-driven forces. <i>Environment International</i> , 2020, 142, 105812.	10.0	62
11	Implications of East Asian summer and winter monsoons for interannual aerosol variations over central-eastern China. <i>Atmospheric Environment</i> , 2016, 129, 218-228.	4.1	61
12	Substantial reductions in ambient PAHs pollution and lives saved as a co-benefit of effective long-term PM _{2.5} pollution controls. <i>Environment International</i> , 2018, 114, 266-279.	10.0	61
13	Intra-regional transport of black carbon between the south edge of the North China Plain and central China during winter haze episodes. <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 4499-4516.	4.9	58
14	An important mechanism of regional transport for summer smog over the Yangtze River Delta in eastern China. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 16239-16251.	4.9	55
15	Heavy air pollution with a unique non-stagnant atmospheric boundary layer in the Yangtze River middle basin aggravated by regional transport of PM _{2.5} over China. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 7217-7230.	4.9	51
16	Long range trans-Pacific transport and deposition of Asian dust aerosols. <i>Journal of Environmental Sciences</i> , 2008, 20, 424-428.	6.1	50
17	Spatial variations and trends in AOD climatology over East Africa during 2002–2016: a comparative study using three satellite data sets. <i>International Journal of Climatology</i> , 2018, 38, e1221.	3.5	50
18	Importance of regional PM _{2.5} transport and precipitation washout in heavy air pollution in the Twain-Hu Basin over Central China: Observational analysis and WRF-Chem simulation. <i>Science of the Total Environment</i> , 2021, 758, 143710.	8.0	48

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19	"Harbor" effect of large topography on haze distribution in eastern China and its climate modulation on decadal variations in haze. Chinese Science Bulletin, 2015, 60, 1132-1143.	0.7	44
20	Statistical intercomparison and validation of multisensory aerosol optical depth retrievals over three AERONET sites in Kenya, East Africa. Atmospheric Research, 2017, 197, 277-288.	4.1	41
21	Updated emission inventories of power plants in simulating air quality during haze periods over East China. Atmospheric Chemistry and Physics, 2018, 18, 2065-2079.	4.9	41
22	The climatology of aerosol optical thickness and radiative effects in Southeast Asia from 18-years of ground-based observations. Environmental Pollution, 2019, 254, 113025.	7.5	40
23	Collective impacts of biomass burning and synoptic weather on surface PM _{2.5} and CO in Northeast China. Atmospheric Environment, 2019, 213, 64-80.	4.1	39
24	Vertical Structures of Dust Aerosols over East Asia Based on CALIPSO Retrievals. Remote Sensing, 2019, 11, 701.	4.0	39
25	A 10-Year Record of Aerosol Optical Properties and Radiative Forcing Over Three Environmentally Distinct AERONET Sites in Kenya, East Africa. Journal of Geophysical Research D: Atmospheres, 2019, 124, 1596-1617.	3.3	37
26	Modeling study on three-dimensional distribution of dust aerosols during a dust storm over the Tarim Basin, Northwest China. Atmospheric Research, 2019, 218, 285-295.	4.1	36
27	Spatiotemporal variation of aerosol and potential long-range transport impact over the Tibetan Plateau, China. Atmospheric Chemistry and Physics, 2019, 19, 14637-14656.	4.9	36
28	Characterizing regional aerosol pollution in central China based on 19 years of MODIS data: Spatiotemporal variation and aerosol type discrimination. Environmental Pollution, 2020, 263, 114556.	7.5	34
29	A 20-year simulated climatology of global dust aerosol deposition. Science of the Total Environment, 2016, 557-558, 861-868.	8.0	29
30	Improving Lightning and Precipitation Prediction of Severe Convection Using Lightning Data Assimilation With NCAR WRF-CRTFDDA. Journal of Geophysical Research D: Atmospheres, 2017, 122, 12,296.	3.3	29
31	A 5.5-year observations of black carbon aerosol at a megacity in Central China: Levels, sources, and variation trends. Atmospheric Environment, 2020, 232, 117581.	4.1	29
32	Characterization of the aerosol chemical composition during the COVID-19 lockdown period in Suzhou in the Yangtze River Delta, China. Journal of Environmental Sciences, 2021, 102, 110-122.	6.1	28
33	Radiative feedbacks of dust in snow over eastern Asia in CAM4-BAM. Atmospheric Chemistry and Physics, 2018, 18, 12683-12698.	4.9	27
34	Co-benefits of reducing PM _{2.5} and improving visibility by COVID-19 lockdown in Wuhan. Npj Climate and Atmospheric Science, 2021, 4, .	6.8	27
35	Extreme precipitation events in East China and associated moisture transport pathways. Science China Earth Sciences, 2016, 59, 1854-1872.	5.2	26
36	Development of WRF/CUACE v1.0 model and its preliminary application in simulating air quality in China. Geoscientific Model Development, 2021, 14, 703-718.	3.6	26

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37	Atmospheric transport drives regional interactions of ozone pollution in China. <i>Science of the Total Environment</i> , 2022, 830, 154634.	8.0	26
38	Quantifying the Influences of PM _{2.5} and Relative Humidity on Change of Atmospheric Visibility over Recent Winters in an Urban Area of East China. <i>Atmosphere</i> , 2020, 11, 461.	2.3	22
39	Meteorological mechanism of regional PM _{2.5} transport building a receptor region for heavy air pollution over Central China. <i>Science of the Total Environment</i> , 2022, 808, 151951.	8.0	22
40	Meteorology impact on PM _{2.5} change over a receptor region in the regional transport of air pollutants: observational study of recent emission reductions in central China. <i>Atmospheric Chemistry and Physics</i> , 2022, 22, 3579-3593.	4.9	22
41	Diurnal variation of surface ozone in mountainous areas: Case study of Mt. Huang, East China. <i>Science of the Total Environment</i> , 2015, 538, 583-590.	8.0	21
42	Continuous Assimilation of Lightning Data Using Time-Lagged Ensembles for a Convection-Allowing Numerical Weather Prediction Model. <i>Journal of Geophysical Research D: Atmospheres</i> , 2018, 123, 9652-9673.	3.3	21
43	Contribution of Regional PM _{2.5} Transport to Air Pollution Enhanced by Sub-Basin Topography: A Modeling Case over Central China. <i>Atmosphere</i> , 2020, 11, 1258.	2.3	20
44	Interdecadal Changes in Aerosol Optical Depth over Pakistan Based on the MERRA-2 Reanalysis Data during 1980–2018. <i>Remote Sensing</i> , 2021, 13, 822.	4.0	20
45	Elevated 3D structures of PM _{2.5} and impact of complex terrain-forcing circulations on heavy haze pollution over Sichuan Basin, China. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 9253-9268.	4.9	20
46	Regional transport patterns for heavy PM _{2.5} pollution driven by strong cold airflows in Twain-Hu Basin, Central China. <i>Atmospheric Environment</i> , 2022, 269, 118847.	4.1	20
47	Case study of longwave contribution to dust radiative effects over East Asia. <i>Science Bulletin</i> , 2013, 58, 3673-3681.	1.7	19
48	An Observational Study of Entrainment Rate in Deep Convection. <i>Atmosphere</i> , 2015, 6, 1362-1376.	2.3	19
49	Climate modulation of Ni \pm 0.3.4 SST-anomalies on air quality change in southern China: Application to seasonal forecast of haze pollution. <i>Atmospheric Research</i> , 2019, 225, 157-164.	4.1	19
50	Improved method of visibility parameterization focusing on high humidity and aerosol concentrations during fog-haze events: Application in the GRAPES_CAUCE model in Jing-Jin-Ji, China. <i>Atmospheric Environment</i> , 2020, 222, 117139.	4.1	19
51	The contribution of dust devils and dusty plumes to the aerosol budget in western China. <i>Atmospheric Environment</i> , 2016, 126, 21-27.	4.1	18
52	Impact of deep basin terrain on PM _{2.5} distribution and its seasonality over the Sichuan Basin, Southwest China. <i>Environmental Pollution</i> , 2022, 300, 118944.	7.5	17
53	The contribution of different aerosol types to direct radiative forcing over distinct environments of Pakistan inferred from the AERONET data. <i>Environmental Research Letters</i> , 2020, 15, 114062.	5.2	16
54	Simulated regional transport structures and budgets of dust aerosols during a typical springtime dust storm in the Tarim Basin, Northwest China. <i>Atmospheric Research</i> , 2020, 238, 104892.	4.1	16

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55	Effects of the Tibetan Plateau and its second staircase terrain on rainstorms over North China: From the perspective of water vapour transport. <i>International Journal of Climatology</i> , 2019, 39, 3121-3133.	3.5	15
56	Impacts of PBL schemes on PM2.5 simulation and their responses to aerosol-radiation feedback in GRAPES_CUACE model during severe haze episodes in Jing-Jin-Ji, China. <i>Atmospheric Research</i> , 2021, 248, 105268.	4.1	14
57	Multisensor and Multimodel Monitoring and Investigation of a Wintertime Air Pollution Event Ahead of a Cold Front Over Eastern China. <i>Journal of Geophysical Research D: Atmospheres</i> , 2021, 126, e2020JD033538.	3.3	14
58	Structures of convection and turbulent kinetic energy in boundary layer over the southeastern edge of the Tibetan Plateau. <i>Science China Earth Sciences</i> , 2015, 58, 1198-1209.	5.2	13
59	Changes in the Distribution Pattern of PM2.5 Pollution over Central China. <i>Remote Sensing</i> , 2021, 13, 4855.	4.0	13
60	Observational study of formation mechanism, vertical structure, and dust emission of dust devils over the Taklimakan Desert, China. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016, 121, 3608-3618.	3.3	12
61	Optical and radiative properties of aerosols during a severe haze episode over the North China Plain in December 2016. <i>Journal of Meteorological Research</i> , 2017, 31, 1045-1061.	2.4	12
62	Quantifying oceanic moisture exports to mainland China in association with summer precipitation. <i>Climate Dynamics</i> , 2018, 51, 4271-4286.	3.8	12
63	Benefits of refined NH3 emission controls on PM2.5 mitigation in Central China. <i>Science of the Total Environment</i> , 2022, 814, 151957.	8.0	12
64	Distinct impacts of vapor transport from the tropical oceans on the regional glacier retreat over the Qinghai-Tibet Plateau. <i>Science of the Total Environment</i> , 2022, 823, 153545.	8.0	12
65	Variation of the aerosol optical properties and validation of MODIS AOD products over the eastern edge of the Tibetan Plateau based on ground-based remote sensing in 2017. <i>Atmospheric Environment</i> , 2020, 223, 117257.	4.1	11
66	Exploring the ozone pollution over the western Sichuan Basin, Southwest China: The impact of diurnal change in mountain-plains solenoid. <i>Science of the Total Environment</i> , 2022, 839, 156264.	8.0	11
67	Variations in FINN Emissions of Particulate Matters and Associated Carbonaceous Aerosols from Remote Sensing of Open Biomass Burning over Northeast China during 2002â€“2016. <i>Sustainability</i> , 2018, 10, 3353.	3.2	9
68	Evaluating the performance of two surface layer schemes for the momentum and heat exchange processes during severe haze pollution in Jing-Jin-Ji in eastern China. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 17421-17435.	4.9	9
69	Variations of Haze Pollution in China Modulated by Thermal Forcing of the Western Pacific Warm Pool. <i>Atmosphere</i> , 2018, 9, 314.	2.3	9
70	Northeastward propagation of nocturnal precipitation over the Sichuan Basin. <i>International Journal of Climatology</i> , 2021, 41, E2863.	3.5	9
71	Evaluations of Surface PM10 Concentration and Chemical Compositions in MERRA-2 Aerosol Reanalysis over Central and Eastern China. <i>Remote Sensing</i> , 2021, 13, 1317.	4.0	9
72	Nocturnal surface radiation cooling modulated by cloud cover change reinforces PM2.5 accumulation: Observational study of heavy air pollution in the Sichuan Basin, Southwest China. <i>Science of the Total Environment</i> , 2021, 794, 148624.	8.0	9

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73	Dust Radiative Effect Characteristics during a Typical Springtime Dust Storm with Persistent Floating Dust in the Tarim Basin, Northwest China. <i>Remote Sensing</i> , 2022, 14, 1167.	4.0	9
74	Threshold Velocity for Saltation Activity in the Taklimakan Desert. <i>Pure and Applied Geophysics</i> , 2017, 174, 4459-4470.	1.9	8
75	Simulation of the responses of rainstorm in the Yangtze River Middle Reaches to changes in anthropogenic aerosol emissions. <i>Atmospheric Environment</i> , 2020, 220, 117081.	4.1	8
76	Regulation of Synoptic Circulation in Regional PM _{2.5} Transport for Heavy Air Pollution: Study of 5-year Observation Over Central China. <i>Journal of Geophysical Research D: Atmospheres</i> , 2022, 127, .	3.3	8
77	The relationships between surface-column aerosol concentrations and meteorological factors observed at major cities in the Yangtze River Delta, China. <i>Environmental Science and Pollution Research</i> , 2019, 26, 36568-36588.	5.3	7
78	Long-term variations in aerosol optical properties, types, and radiative forcing in the Sichuan Basin, Southwest China. <i>Science of the Total Environment</i> , 2021, 807, 151490.	8.0	7
79	Roles of Atmospheric Turbulence and Stratification in a Regional Pollution Transport Event in the Middle Reaches of the Yangtze River. <i>Earth and Space Science</i> , 2022, 9, .	2.6	7
80	The Cross-Border Transport of PM _{2.5} from the Southeast Asian Biomass Burning Emissions and Its Impact on Air Pollution in Yunnan Plateau, Southwest China. <i>Remote Sensing</i> , 2022, 14, 1886.	4.0	7
81	Effect of Vertical Wind Shear on PM _{2.5} Changes over a Receptor Region in Central China. <i>Remote Sensing</i> , 2022, 14, 3333.	4.0	7
82	A method to dynamically constrain black carbon aerosol sources with online monitored potassium. <i>Npj Climate and Atmospheric Science</i> , 2021, 4, .	6.8	6
83	Contribution of Fire Emissions to PM _{2.5} and Its Transport Mechanism Over the Yungui Plateau, China During 2015-2019. <i>Journal of Geophysical Research D: Atmospheres</i> , 2022, 127, .	3.3	6
84	Impact of Inter-Regional Transport in a Low-Emission Scenario on PM _{2.5} in Hubei Province, Central China. <i>Atmosphere</i> , 2021, 12, 250.	2.3	5
85	Aggravation effect of regional transport on wintertime PM _{2.5} over the middle reaches of the Yangtze River under China's air pollutant emission reduction process. <i>Atmospheric Pollution Research</i> , 2021, 12, 101111.	3.8	5
86	Anomalous surface O ₃ changes in North China Plain during the northwestward movement of a landing typhoon. <i>Science of the Total Environment</i> , 2022, 820, 153196.	8.0	5
87	In situ observation of warm atmospheric layer and the heat contribution of suspended dust over the Tarim Basin. <i>Atmospheric Chemistry and Physics</i> , 2022, 22, 5195-5207.	4.9	5
88	Revealed variations of air quality in industrial development over a remote plateau of Southwest China: an application of atmospheric visibility data. <i>Meteorology and Atmospheric Physics</i> , 2017, 129, 659-667.	2.0	4
89	Simulation and Analyses of the Potential Impacts of Different Particle-Size Dust Aerosols Caused by the Qinghai-Tibet Plateau Desertification on East Asia. <i>Sustainability</i> , 2020, 12, 3231.	3.2	4
90	Assessment of variations of air pollutant concentrations during the COVID-19 lockdown and impact on urban air quality in South Asia. <i>Urban Climate</i> , 2021, 38, 100908.	5.7	4

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91	Modeling Dust Direct Radiative Feedbacks in East Asia During the Last Glacial Maximum. <i>Atmosphere</i> , 2019, 10, 146.	2.3	3
92	A teleconnection between sea surface temperature in the central and eastern Pacific and wintertime haze variations in southern China. <i>Theoretical and Applied Climatology</i> , 2021, 143, 349-359.	2.8	3
93	Impacts of Nocturnal Cloud Top Radiative Cooling on Surface O ₃ in Sichuan Basin, Southwestern China. <i>Earth and Space Science</i> , 2021, 8, e2020EA001541.	2.6	3
94	Modulation of springtime surface sensible heating over the Tibetan Plateau on the interannual variability of East Asian dust cycle. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 11143-11159.	4.9	3
95	Size Distributions of Water-Soluble Inorganic Ions in Atmospheric Aerosols During the Meiyu Period in the Yangtze River Delta, China. <i>Frontiers in Environmental Science</i> , 2021, 9, .	3.3	2