Yunsoo Choi

List of Publications by Year
in descending order

64	1,930	218677	289244
papers	citations	26 h-index	40 g-index

67	67	67	1799
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	New Era of Air Quality Monitoring from Space: Geostationary Environment Monitoring Spectrometer (GEMS). Bulletin of the American Meteorological Society, 2020, 101, E1-E22.	3.3	165
2	Constraining global isoprene emissions with Global Ozone Monitoring Experiment (GOME) formaldehyde column measurements. Journal of Geophysical Research, 2005, 110, .	3.3	140
3	Impact of the COVID-19 outbreak on air pollution levels in East Asia. Science of the Total Environment, 2021, 754, 142226.	8.0	108
4	Using a deep convolutional neural network to predict 2017 ozone concentrations, 24 hours in advance. Neural Networks, 2020, 121, 396-408.	5.9	85
5	A comprehensive investigation of surface ozone pollution in China, 2015â€“2019: Separating the contributions from meteorology and precursor emissions. Atmospheric Research, 2021, 257, 105599.	4.1	83
6	Constraining NOx emissions using satellite NO2 measurements during 2013 DISCOVER-AQ Texas campaign. Atmospheric Environment, 2016, 131, 371-381.	4.1	72
7	Remote sensing evidence of decadal changes in major tropospheric ozone precursors over East Asia. Journal of Geophysical Research D: Atmospheres, 2017, 122, 2474-2492.	3.3	61
8	Potential impacts of electric vehicles on air quality and health endpoints in the Greater Houston Area in 2040. Atmospheric Environment, 2019, 207, 38-51.	4.1	54
9	A real-time hourly ozone prediction system using deep convolutional neural network. Neural Computing and Applications, 2020, 32, 8783-8797.	5.6	50
10	The Impact of the Direct Effect of Aerosols on Meteorology and Air Quality Using Aerosol Optical Depth Assimilation During the KORUSâ€AQ Campaign. Journal of Geophysical Research D: Atmospheres, 2019, 124, 8303-8319.	3.3	49
11	Bias correcting and extending the PM forecast by CMAQ up to 7 days using deep convolutional neural networks. Atmospheric Environment, 2021, 253, 118376.	4.1	48
12	A data ensemble approach for real-time air quality forecasting using extremely randomized trees and deep neural networks. Neural Computing and Applications, 2020, 32, 7563-7579.	5.6	46
13	Deep Learning Estimation of Daily Groundâ€Level NO₂ Concentrations From Remote Sensing Data. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2021JD034925.	3.3	41
14	Chemical condition and surface ozone in large cities of Texas during the last decade: Observational evidence from OMI, CAMS, and model analysis. Remote Sensing of Environment, 2015, 168, 90-101.	11.0	40
15	A 15-year climatology of wind pattern impacts on surface ozone in Houston, Texas. Atmospheric Research, 2016, 174-175, 124-134.	4.1	38
16	The impact of observation nudging on simulated meteorology and ozone concentrations during DISCOVER-AQ 2013 Texas campaign. Atmospheric Chemistry and Physics, 2016, 16, 3127-3144.	4.9	37
17	Estimating daily high-resolution PM2.5 concentrations over Texas: Machine Learning approach. Atmospheric Environment, 2021, 247, 118209.	4.1	37
18	Lightning and anthropogenic NO_x sources over the United States and the western North Atlantic Ocean: Impact on OLR and radiative effects. Geophysical Research Letters, 2009, 36, .	4.0	35

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19	Allocating emissions to 4Âkm and 1Âkm horizontal spatial resolutions and its impact on simulated NOx and O3 in Houston, TX. Atmospheric Environment, 2017, 164, 398-415.	4.1	34
20	A novel CMAQ-CNN hybrid model to forecast hourly surface-ozone concentrations 14 days in advance. Scientific Reports, 2021, 11, 10891.	3.3	34
21	A quantitative analysis of grid nudging effect on each process of PM 2.5 production in the Korean Peninsula. Atmospheric Environment, 2015, 122, 763-774.	4.1	33
22	Quantifying the Impact of Biomass Burning Emissions on Major Inorganic Aerosols and Their Precursors in the U.S.. Journal of Geophysical Research D: Atmospheres, 2017, 122, 12,020.	3.3	31
23	Shared use of electric autonomous vehicles: Air quality and health impacts of future mobility in the United States. Renewable and Sustainable Energy Reviews, 2021, 149, 111380.	16.4	31
24	Modeling the uncertainty of several VOC and its impact on simulated VOC and ozone in Houston, Texas. Atmospheric Environment, 2015, 120, 404-416.	4.1	30
25	Efficient PM2.5 forecasting using geographical correlation based on integrated deep learning algorithms. Neural Computing and Applications, 2021, 33, 15073-15089.	5.6	30
26	The characterization of fine particulate matter downwind of Houston: Using integrated factor analysis to identify anthropogenic and natural sources. Environmental Pollution, 2020, 262, 114345.	7.5	29
27	Air Quality Implications of COVID-19 in California. Sustainability, 2020, 12, 7067.	3.2	28
28	The air quality and health impacts of projected long-haul truck and rail freight transportation in the United States in 2050. Environment International, 2019, 130, 104922.	10.0	26
29	Seasonal behavior and long-term trends of tropospheric ozone, its precursors and chemical conditions over Iran: A view from space. Atmospheric Environment, 2015, 106, 232-240.	4.1	25
30	A comprehensive study of the COVID-19 impact on PM2.5 levels over the contiguous United States: A deep learning approach. Atmospheric Environment, 2022, 272, 118944.	4.1	23
31	Real-time 7-day forecast of pollen counts using a deep convolutional neural network. Neural Computing and Applications, 2020, 32, 11827-11836.	5.6	22
32	Concentration Trajectory Route of Air pollution with an Integrated Lagrangian model (C-TRAIL Model) Tj ETQq0 0 0 rgBT /Overlock 10 Tf Model Development, 2020, 13, 3489-3505.	3.6	22
33	Impact of high-resolution sea surface temperature, emission spikes and wind on simulated surface ozone in Houston, Texas during a high ozone episode. Atmospheric Environment, 2017, 152, 362-376.	4.1	21
34	First Topâ€Down Estimates of Anthropogenic NO_x Emissions Using Highâ€Resolution Airborne Remote Sensing Observations. Journal of Geophysical Research D: Atmospheres, 2018, 123, 3269-3284.	3.3	21
35	Identification of chemical fingerprints in long-range transport of burning induced upper tropospheric ozone from Colorado to the North Atlantic Ocean. Science of the Total Environment, 2018, 613-614, 820-828.	8.0	21
36	Application of a Partial Convolutional Neural Network for Estimating Geostationary Aerosol Optical Depth Data. Geophysical Research Letters, 2021, 48, e2021GL093096.	4.0	21

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37	Behavior of sulfate on the sea surface during its transport from Eastern China to South Korea. Atmospheric Environment, 2018, 186, 102-112.	4.1	16
38	A Deep Convolutional Neural Network Model for Improving WRF Simulations. IEEE Transactions on Neural Networks and Learning Systems, 2023, 34, 750-760.	11.3	14
39	The Impact of Springtimeâ€Transported Air Pollutants on Local Air Quality With Satelliteâ€Constrained NO_x Emission Adjustments Over East Asia. Journal of Geophysical Research D: Atmospheres, 2022, 127, .	3.3	14
40	Influence of seasonal variability on source characteristics of VOCs at Houston industrial area. Atmospheric Environment, 2022, 277, 119077.	4.1	13
41	Understanding the contributions of anthropogenic and biogenic sources to CO enhancements and outflow observed over North America and the western Atlantic Ocean by TES and MOPITT. Atmospheric Environment, 2010, 44, 2033-2042.	4.1	12
42	Computationally efficient air quality forecasting tool: implementation of STOPS v1.5 model into CMAQ v5.0.2 for a prediction of Asian dust. Geoscientific Model Development, 2016, 9, 3671-3684.	3.6	12
43	Characterization of Regional Wind Patterns Using Self-Organizing Maps: Impact on Dallasâ€“Fort Worth Long-Term Ozone Trends. Journal of Applied Meteorology and Climatology, 2019, 58, 757-772.	1.5	12
44	Role of Sea Fog Over the Yellow Sea on Air Quality With the Direct Effect of Aerosols. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD033498.	3.3	12
45	Changes in the ozone chemical regime over the contiguous United States inferred by the inversion of NOx and VOC emissions using satellite observation. Atmospheric Research, 2022, 270, 106076.	4.1	12
46	Development and Implementation of a Physicsâ€Based Convective Mixing Scheme in the Community Multiscale Air Quality Modeling Framework. Journal of Advances in Modeling Earth Systems, 2021, 13, e2021MS002475.	3.8	11
47	Modeling the effect of relative humidity on nitrous acid formation in the Houston area. Atmospheric Environment, 2016, 131, 78-82.	4.1	10
48	Investigating the long-range transport of particulate matter in East Asia: Introducing a new Lagrangian diagnostic tool. Atmospheric Environment, 2022, 278, 119096.	4.1	10
49	Effect of Ambient Temperature on Total Organic Gas Speciation Profiles from Light-Duty Gasoline Vehicle Exhaust. Environmental Science & Technology, 2016, 50, 6565-6573.	10.0	9
50	Discrepancies between modeled and observed nocturnal isoprene in an urban environment and the possible causes: A case study in Houston. Atmospheric Research, 2016, 181, 257-264.	4.1	9
51	Ozone production by corona discharges during a convective event in DISCOVER-AQ Houston. Atmospheric Environment, 2017, 161, 13-17.	4.1	9
52	Impact of Varying Wind Patterns on PM10 Concentrations in the Seoul Metropolitan Area in South Korea from 2012 to 2016. Journal of Applied Meteorology and Climatology, 2019, 58, 2743-2754.	1.5	9
53	Response of Hurricane Harveyâ€™s rainfall to anthropogenic aerosols: A sensitivity study based on spectral bin microphysics with simulated aerosols. Atmospheric Research, 2020, 242, 104965.	4.1	9
54	Characteristics of aerosol chemical components and their impacts on direct radiative forcing at urban and suburban locations in Southeast Texas. Atmospheric Environment, 2021, 246, 118151.	4.1	9

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55	Using wavelet transform and dynamic time warping to identify the limitations of the CNN model as an air quality forecasting system. Geoscientific Model Development, 2020, 13, 6237-6251.	3.6	9
56	Impacts of uncertainties in emissions on aerosol data assimilation and short-term PM2.5 predictions over Northeast Asia. Atmospheric Environment, 2022, 271, 118921.	4.1	9
57	CMAQ-CNN: A new-generation of post-processing techniques for chemical transport models using deep neural networks. Atmospheric Environment, 2022, 273, 118961.	4.1	9
58	Effects of Biomass Burning Emissions on Air Quality Over the Continental USA: A Three-Year Comprehensive Evaluation Accounting for Sensitivities Due to Boundary Conditions and Plume Rise Height. Energy, Environment, and Sustainability, 2018, , 245-278.	1.0	6
59	The mechanism of the formation of high sulfate concentrations over the Yellow Sea during the KORUS-AQ period: The effect of transport/atmospheric chemistry and ocean emissions. Atmospheric Research, 2021, 261, 105756.	4.1	6
60	The sensitivities of ozone and PM2.5 concentrations to the satellite-derived leaf area index over East Asia and its neighboring seas in the WRF-CMAQ modeling system. Environmental Pollution, 2022, 306, 119419.	7.5	6
61	Effect of ambient temperature on species lumping for total organic gases in gasoline exhaust emissions. Atmospheric Environment, 2017, 152, 240-245.	4.1	5
62	Investigation of Primary Factors Affecting the Variation of Modeled Oak Pollen Concentrations: A Case Study for Southeast Texas in 2010. Asia-Pacific Journal of Atmospheric Sciences, 2018, 54, 33-41.	2.3	3
63	Temperature dependence of source specific volatility basis sets for motor vehicle exhaust. Atmospheric Environment, 2015, 119, 258-261.	4.1	2
64	An Efficient Method for Capturing the High Peak Concentrations of PM2.5 Using Gaussian-Filtered Deep Learning. Sustainability, 2021, 13, 11889.	3.2	0