

Tf Chai

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/8866019/publications.pdf>

Version: 2024-02-01

58
papers

5,615
citations

186265
28
h-index

144013
57
g-index

83
all docs

83
docs citations

83
times ranked

6525
citing authors

#	ARTICLE	IF	CITATIONS
1	Evaluating oil and gas contributions to ambient nonmethane hydrocarbon mixing ratios and ozone-related metrics in the Colorado Front Range. <i>Atmospheric Environment</i> , 2021, 246, 118113.	4.1	6
2	High-resolution hybrid inversion of IASI ammonia columns to constrain US ammonia emissions using the CMAQ adjoint model. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 2067-2082.	4.9	22
3	Improving predictability of high-ozone episodes through dynamic boundary conditions, emission refresh and chemical data assimilation during the Long Island Sound Tropospheric Ozone Study (LISTOS) field campaign. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 16531-16553.	4.9	5
4	Inverse modeling of fire emissions constrained by smoke plume transport using HYSPLIT dispersion model and geostationary satellite observations. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 10259-10277.	4.9	14
5	A multiphase CMAQ version 5.0 adjoint. <i>Geoscientific Model Development</i> , 2020, 13, 2925-2944.	3.6	15
6	Significant wintertime PM _{2.5} mitigation in the Yangtze River Delta, China, from 2016 to 2019: observational constraints on anthropogenic emission controls. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 14787-14800.	4.9	13
7	Elucidating emissions control strategies for ozone to protect human health and public welfare within the continental United States. <i>Environmental Research Letters</i> , 2019, 14, 124093.	5.2	5
8	International challenge to model the long-range transport of radionuclides released from medical isotope production to six Comprehensive Nuclear-Test-Ban Treaty monitoring stations. <i>Journal of Environmental Radioactivity</i> , 2018, 192, 667-686.	1.7	27
9	Weak-constraint inverse modeling using HYSPLIT-4 Lagrangian dispersion model and Cross-Appalachian Tracer Experiment (CAPTEX) observations: effect of including model uncertainties on source term estimation. <i>Geoscientific Model Development</i> , 2018, 11, 5135-5148.	3.6	7
10	A Conservative Downscaling of Satellite-Detected Chemical Compositions: NO ₂ Column Densities of OMI, GOME-2, and CMAQ. <i>Remote Sensing</i> , 2018, 10, 1001.	4.0	18
11	Impact of Moderate Resolution Imaging Spectroradiometer Aerosol Optical Depth and AirNow PM _{2.5} assimilation on Community Multi-scale Air Quality aerosol predictions over the contiguous United States. <i>Journal of Geophysical Research D: Atmospheres</i> , 2017, 122, 5399-5415.	3.3	22
12	Improving volcanic ash predictions with the HYSPLIT dispersion model by assimilating MODIS satellite retrievals. <i>Atmospheric Chemistry and Physics</i> , 2017, 17, 2865-2879.	4.9	43
13	A case study of aerosol data assimilation with the Community Multi-scale Air Quality Model over the contiguous United States using 3D-Var and optimal interpolation methods. <i>Geoscientific Model Development</i> , 2017, 10, 4743-4758.	3.6	39
14	Reply to Comment on "Premature deaths attributed to source-specific BC emissions in six urban US regions". <i>Environmental Research Letters</i> , 2016, 11, 098002.	5.2	0
15	International challenge to predict the impact of radionuclide releases from medical isotope production on a comprehensive nuclear test ban treaty sampling station. <i>Journal of Environmental Radioactivity</i> , 2016, 157, 41-51.	1.7	35
16	Improved western U.S. background ozone estimates via constraining nonlocal and local source contributions using Aura TES and OMI observations. <i>Journal of Geophysical Research D: Atmospheres</i> , 2015, 120, 3572-3592.	3.3	15
17	Premature deaths attributed to source-specific BC emissions in six urban US regions. <i>Environmental Research Letters</i> , 2015, 10, 114014.	5.2	14
18	Potential Use of Transport and Dispersion Model Ensembles for Forecasting Applications. <i>Weather and Forecasting</i> , 2015, 30, 639-655.	1.4	37

#	ARTICLE	IF	CITATIONS
19	Long-term NO _x trends over large cities in the United States during the great recession: Comparison of satellite retrievals, ground observations, and emission inventories. <i>Atmospheric Environment</i> , 2015, 107, 70-84.	4.1	107
20	Source term estimation using air concentration measurements and a Lagrangian dispersion model – Experiments with pseudo and real cesium-137 observations from the Fukushima nuclear accident. <i>Atmospheric Environment</i> , 2015, 106, 241-251.	4.1	38
21	Differences Between Magnitudes and Health Impacts of BC Emissions Across the United States Using 12 km Scale Seasonal Source Apportionment. <i>Environmental Science & Technology</i> , 2015, 49, 4362-4371.	10.0	20
22	Using optimal interpolation to assimilate surface measurements and satellite AOD for ozone and PM _{2.5} : A case study for July 2011. <i>Journal of the Air and Waste Management Association</i> , 2015, 65, 1206-1216.	1.9	29
23	Root mean square error (RMSE) or mean absolute error (MAE)? – Arguments against avoiding RMSE in the literature. <i>Geoscientific Model Development</i> , 2014, 7, 1247-1250.	3.6	3,175
24	Changes in nitrogen oxides emissions in California during 2005–2010 indicated from top-down and bottom-up emission estimates. <i>Journal of Geophysical Research D: Atmospheres</i> , 2014, 119, 12,928.	3.3	16
25	Assessment of NO _x and O ₃ forecasting performances in the U.S. National Air Quality Forecasting Capability before and after the 2012 major emissions updates. <i>Atmospheric Environment</i> , 2014, 95, 610-619.	4.1	43
26	Building and Testing Atmospheric Chemistry Reanalysis Modeling System. <i>Springer Proceedings in Complexity</i> , 2014, , 581-585.	0.3	1
27	Evaluation of the United States National Air Quality Forecast Capability experimental real-time predictions in 2010 using Air Quality System ozone and NO ₂ measurements. <i>Geoscientific Model Development</i> , 2013, 6, 1831-1850.	3.6	64
28	Impacts of transported background pollutants on summertime western US air quality: model evaluation, sensitivity analysis and data assimilation. <i>Atmospheric Chemistry and Physics</i> , 2013, 13, 359-391.	4.9	28
29	Chemical Data Assimilation – An Overview. <i>Atmosphere</i> , 2011, 2, 426-463.	2.3	79
30	Ensemble Methods for Dynamic Data Assimilation of Chemical Observations in Atmospheric Models. <i>Journal of Algorithms and Computational Technology</i> , 2011, 5, 667-692.	0.7	6
31	Regional NO _x emission inversion through a four-dimensional variational approach using SCIAMACHY tropospheric NO ₂ column observations. <i>Atmospheric Environment</i> , 2009, 43, 5046-5055.	4.1	54
32	Predicting air quality: Improvements through advanced methods to integrate models and measurements. <i>Journal of Computational Physics</i> , 2008, 227, 3540-3571.	3.8	134
33	An adjoint sensitivity analysis and 4D-Var data assimilation study of Texas air quality. <i>Atmospheric Environment</i> , 2008, 42, 5787-5804.	4.1	35
34	A regional scale chemical transport modeling of Asian aerosols with data assimilation of AOD observations using optimal interpolation technique. <i>Atmospheric Environment</i> , 2008, 42, 8600-8615.	4.1	104
35	Photosynthetic Control of Atmospheric Carbonyl Sulfide During the Growing Season. <i>Science</i> , 2008, 322, 1085-1088.	12.6	196
36	Predicting Air Quality: Current Status and Future Directions. <i>NATO Security Through Science Series C: Environmental Security</i> , 2008, , 481-495.	0.1	1

#	ARTICLE	IF	CITATIONS
37	Influence of lateral and top boundary conditions on regional air quality prediction: A multiscale study coupling regional and global chemical transport models. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	82
38	Improving regional ozone modeling through systematic evaluation of errors using the aircraft observations during the International Consortium for Atmospheric Research on Transport and Transformation. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	13
39	Four-dimensional data assimilation experiments with International Consortium for Atmospheric Research on Transport and Transformation ozone measurements. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	66
40	Autoregressive models of background errors for chemical data assimilation. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	40
41	Ensemble-based chemical data assimilation. I: General approach. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2007, 133, 1229-1243.	2.7	69
42	Ensemble-based chemical data assimilation. II: Covariance localization. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2007, 133, 1245-1256.	2.7	46
43	Analysis of anthropogenic CO ₂ signal in ICARTT using a regional chemical transport model and observed tracers. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 2007, 59, 199-210.	1.6	8
44	Assessment of ensemble-based chemical data assimilation in an idealized setting. <i>Atmospheric Environment</i> , 2007, 41, 18-36.	4.1	45
45	Top-down estimate of mercury emissions in China using four-dimensional variational data assimilation. <i>Atmospheric Environment</i> , 2007, 41, 2804-2819.	4.1	36
46	Localized Ensemble Kalman Dynamic Data Assimilation for Atmospheric Chemistry. <i>Lecture Notes in Computer Science</i> , 2007, , 1018-1025.	1.3	3
47	Chemical data assimilation of Transport and Chemical Evolution over the Pacific (TRACE-P) aircraft measurements. <i>Journal of Geophysical Research</i> , 2006, 111, .	3.3	55
48	Adjoint Sensitivity Analysis of Ozone Nonattainment over the Continental United States. <i>Environmental Science & Technology</i> , 2006, 40, 3855-3864.	10.0	57
49	Singular Vector Analysis for Atmospheric Chemical Transport Models. <i>Monthly Weather Review</i> , 2006, 134, 2443-2465.	1.4	21
50	Adjoint sensitivity analysis of regional air quality models. <i>Journal of Computational Physics</i> , 2005, 204, 222-252.	3.8	201
51	Ensemble-based Data Assimilation for Atmospheric Chemical Transport Models. <i>Lecture Notes in Computer Science</i> , 2005, , 648-655.	1.3	6
52	Adjoint inverse modeling of black carbon during the Asian Pacific Regional Aerosol Characterization Experiment. <i>Journal of Geophysical Research</i> , 2005, 110, n/a-n/a.	3.3	110
53	Retrieval of Microscale Flow Structures from High-Resolution Doppler Lidar Data Using an Adjoint Model. <i>Journals of the Atmospheric Sciences</i> , 2004, 61, 1500-1520.	1.7	30
54	Computational Aspects of Data Assimilation for Aerosol Dynamics. <i>Lecture Notes in Computer Science</i> , 2004, , 709-716.	1.3	5

#	ARTICLE	IF	CITATIONS
55	Estimation of Turbulent Viscosity and Diffusivity in Adjoint Recovery of Atmospheric Boundary Layer Flow Structures. <i>Multiscale Modeling and Simulation</i> , 2003, 1, 196-220.	1.6	5
56	Computational Aspects of Chemical Data Assimilation into Atmospheric Models. <i>Lecture Notes in Computer Science</i> , 2003, , 269-278.	1.3	17
57	On the Smoothness Constraints for Four-Dimensional Data Assimilation. <i>Journal of Computational Physics</i> , 2002, 181, 430-453.	3.8	7
58	Retrieval of Flow Structures in a Convective Boundary Layer Using an Adjoint Model: Identical Twin Experiments. <i>Journals of the Atmospheric Sciences</i> , 2001, 58, 1767-1783.	1.7	17