

# Jerome D Fast

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/3356392/publications.pdf>

Version: 2024-02-01

103  
papers

9,525  
citations

53939

47  
h-index

51423

90  
g-index

104  
all docs

104  
docs citations

104  
times ranked

8125  
citing authors

#	ARTICLE	IF	CITATIONS
1	Determining Spatial Scales of Soil Moisture–Cloud Coupling Pathways Using Semi-Idealized Simulations. <i>Journal of Geophysical Research D: Atmospheres</i> , 2022, 127, e2021JD035282.	1.2	2
2	Enabling probabilistic retrospective transport modeling for accurate source detection. <i>Journal of Environmental Radioactivity</i> , 2022, 247, 106849.	0.9	1
3	The striking effect of vertical mixing in the planetary boundary layer on new particle formation in the Yangtze River Delta. <i>Science of the Total Environment</i> , 2022, 829, 154607.	3.9	11
4	Earth System Model Aerosol–Cloud Diagnostics (ESMAC Diags) package, version 1: assessing E3SM aerosol predictions using aircraft, ship, and surface measurements. <i>Geoscientific Model Development</i> , 2022, 15, 4055-4076.	1.3	3
5	Fine scale variability in Green Vegetation Fraction Over the Southern Great Plains using Sentinel-2 satellite: A case study. <i>Remote Sensing Applications: Society and Environment</i> , 2022, 27, 100799.	0.8	0
6	Impact of Urban Pollution on Organic-Mediated New-Particle Formation and Particle Number Concentration in the Amazon Rainforest. <i>Environmental Science &amp; Technology</i> , 2021, 55, 4357-4367.	4.6	12
7	Representations of Precipitation Diurnal Cycle in the Amazon as Simulated by Observationally Constrained Cloud–System Resolving and Global Climate Models. <i>Journal of Advances in Modeling Earth Systems</i> , 2021, 13, e2021MS002586.	1.3	7
8	Aerosol Total Volume Estimation From Wavelength- and Size-Resolved Scattering Coefficient Data: A New Method. <i>Earth and Space Science</i> , 2020, 7, e2019EA000863.	1.1	1
9	Simulation of Continental Shallow Cumulus Populations Using an Observation-Constrained Cloud–System Resolving Model. <i>Journal of Advances in Modeling Earth Systems</i> , 2020, 12, e2020MS002091.	1.3	4
10	Characterization of Surface Heterogeneity-Induced Convection Using Cluster Analysis. <i>Journal of Geophysical Research D: Atmospheres</i> , 2020, 125, e2020JD032550.	1.2	9
11	Assessing CLUBB PDF Closure Assumptions for a Continental Shallow-to-Deep Convective Transition Case Over Multiple Spatial Scales. <i>Journal of Advances in Modeling Earth Systems</i> , 2020, 12, e2020MS002145.	1.3	3
12	Wintertime Particulate Matter Decrease Buffered by Unfavorable Chemical Processes Despite Emissions Reductions in China. <i>Geophysical Research Letters</i> , 2020, 47, e2020GL087721.	1.5	40
13	Fine-Scale Variability of Observed and Simulated Surface Albedo Over the Southern Great Plains. <i>Journal of Geophysical Research D: Atmospheres</i> , 2020, 125, e2019JD030559.	1.2	5
14	Efficient Nighttime Biogenic SOA Formation in a Polluted Residual Layer. <i>Journal of Geophysical Research D: Atmospheres</i> , 2020, 125, e2019JD031583.	1.2	14
15	High concentration of ultrafine particles in the Amazon free troposphere produced by organic new particle formation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 25344-25351.	3.3	49
16	The Multi-Scale Infrastructure for Chemistry and Aerosols (MUSICA). <i>Bulletin of the American Meteorological Society</i> , 2020, 101, E1743-E1760.	1.7	21
17	Overview of the HI-SCALE Field Campaign: A New Perspective on Shallow Convective Clouds. <i>Bulletin of the American Meteorological Society</i> , 2019, 100, 821-840.	1.7	44
18	The Impact of Variable Land–Atmosphere Coupling on Convective Cloud Populations Observed During the 2016 HI-SCALE Field Campaign. <i>Journal of Advances in Modeling Earth Systems</i> , 2019, 11, 2629-2654.	1.3	22

#	ARTICLE	IF	CITATIONS
19	Urban pollution greatly enhances formation of natural aerosols over the Amazon rainforest. <i>Nature Communications</i> , 2019, 10, 1046.	5.8	131
20	Global long-range transport and lung cancer risk from polycyclic aromatic hydrocarbons shielded by coatings of organic aerosol. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 1246-1251.	3.3	185
21	Large Contribution of Coarse Mode to Aerosol Microphysical and Optical Properties: Evidence from Ground-Based Observations of a Transpacific Dust Outbreak at a High-Elevation North American Site. <i>Journals of the Atmospheric Sciences</i> , 2017, 74, 1431-1443.	0.6	6
22	Quantifying black carbon deposition over the Greenland ice sheet from forest fires in Canada. <i>Geophysical Research Letters</i> , 2017, 44, 7965-7974.	1.5	41
23	The Green Ocean Amazon Experiment (GoAmazon2014/5) Observes Pollution Affecting Gases, Aerosols, Clouds, and Rainfall over the Rain Forest. <i>Bulletin of the American Meteorological Society</i> , 2017, 98, 981-997.	1.7	128
24	Metrics to quantify the importance of mixing state for CCN activity. <i>Atmospheric Chemistry and Physics</i> , 2017, 17, 7445-7458.	1.9	33
25	Cross-polar transport and scavenging of Siberian aerosols containing black carbon during the 2012 ACCESS summer campaign. <i>Atmospheric Chemistry and Physics</i> , 2017, 17, 10969-10995.	1.9	24
26	Sensitivity of biogenic volatile organic compounds to land surface parameterizations and vegetation distributions in California. <i>Geoscientific Model Development</i> , 2016, 9, 1959-1976.	1.3	34
27	Investigation of boundary-layer wind predictions during nocturnal low-level jet events using the Weather Research and Forecasting model. <i>Wind Energy</i> , 2016, 19, 739-762.	1.9	15
28	The Two-Column Aerosol Project: Phase I Overview and impact of elevated aerosol layers on aerosol optical depth. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016, 121, 336-361.	1.2	33
29	Sensitivity analysis of simulated SOA loadings using a variance-based statistical approach. <i>Journal of Advances in Modeling Earth Systems</i> , 2016, 8, 499-519.	1.3	10
30	A three-dimensional sectional representation of aerosol mixing state for simulating optical properties and cloud condensation nuclei. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016, 121, 5912-5929.	1.2	21
31	Simulations of sulfate-nitrate-ammonium (SNA) aerosols during the extreme haze events over northern China in October 2014. <i>Atmospheric Chemistry and Physics</i> , 2016, 16, 10707-10724.	1.9	100
32	Spatial Variability of the Background Diurnal Cycle of Deep Convection around the GoAmazon2014/5 Field Campaign Sites. <i>Journal of Applied Meteorology and Climatology</i> , 2016, 55, 1579-1598.	0.6	38
33	Global transformation and fate of SOA: Implications of low-volatility SOA and gas-phase fragmentation reactions. <i>Journal of Geophysical Research D: Atmospheres</i> , 2015, 120, 4169-4195.	1.2	123
34	Modifications to WRF's dynamical core to improve the treatment of moisture for large-eddy simulations. <i>Journal of Advances in Modeling Earth Systems</i> , 2015, 7, 1627-1642.	1.3	8
35	Ice formation on nitric acid-coated dust particles: Laboratory and modeling studies. <i>Journal of Geophysical Research D: Atmospheres</i> , 2015, 120, 7682-7698.	1.2	18
36	Transport of anthropogenic and biomass burning aerosols from Europe to the Arctic during spring 2008. <i>Atmospheric Chemistry and Physics</i> , 2015, 15, 3831-3850.	1.9	25

#	ARTICLE	IF	CITATIONS
37	Modeling particle nucleation and growth over northern California during the 2010 CARES campaign. <i>Atmospheric Chemistry and Physics</i> , 2015, 15, 12283-12313.	1.9	25
38	Global and regional modeling of clouds and aerosols in the marine boundary layer during VOCALS: the VOCA intercomparison. <i>Atmospheric Chemistry and Physics</i> , 2015, 15, 153-172.	1.9	36
39	Aerosol transport and wet scavenging in deep convective clouds: A case study and model evaluation using a multiple passive tracer analysis approach. <i>Journal of Geophysical Research D: Atmospheres</i> , 2015, 120, 8448-8468.	1.2	56
40	Airborne Aerosol in Situ Measurements during TCAP: A Closure Study of Total Scattering. <i>Atmosphere</i> , 2015, 6, 1069-1101.	1.0	16
41	A new WRF-Chem treatment for studying regional-scale impacts of cloud processes on aerosol and trace gases in parameterized cumuli. <i>Geoscientific Model Development</i> , 2015, 8, 409-429.	1.3	38
42	Assessing the CAM5 physics suite in the WRF-Chem model: implementation, resolution sensitivity, and a first evaluation for a regional case study. <i>Geoscientific Model Development</i> , 2014, 7, 755-778.	1.3	74
43	Gaseous chemistry and aerosol mechanism developments for version 3.5.1 of the online regional model, WRF-Chem. <i>Geoscientific Model Development</i> , 2014, 7, 2557-2579.	1.3	51
44	Integrated Meteorology and Chemistry Modeling: Evaluation and Research Needs. <i>Bulletin of the American Meteorological Society</i> , 2014, 95, ES81-ES84.	1.7	3
45	Modeling regional aerosol and aerosol precursor variability over California and its sensitivity to emissions and long-range transport during the 2010 CalNex and CARES campaigns. <i>Atmospheric Chemistry and Physics</i> , 2014, 14, 10013-10060.	1.9	62
46	Comparison of mixed layer heights from airborne high spectral resolution lidar, ground-based measurements, and the WRF-Chem model during CalNex and CARES. <i>Atmospheric Chemistry and Physics</i> , 2014, 14, 5547-5560.	1.9	70
47	Simulation of semi-explicit mechanisms of SOA formation from glyoxal in aerosol in a 3-D model. <i>Atmospheric Chemistry and Physics</i> , 2014, 14, 6213-6239.	1.9	166
48	Corrigendum to "Spectro-microscopic measurements of carbonaceous aerosol aging in Central California" published in <i>Atmos. Chem. Phys.</i> , 13, 10445-10459, 2013. <i>Atmospheric Chemistry and Physics</i> , 2014, 14, 6343-6344.	1.9	0
49	Impact of external industrial sources on the regional and local SO <sub>2</sub> and O <sub>3</sub> levels of the Mexico megacity. <i>Atmospheric Chemistry and Physics</i> , 2014, 14, 8483-8499.	1.9	5
50	Volatility basis-set approach simulation of organic aerosol formation in East Asia: implications for anthropogenic-biogenic interaction and controllable amounts. <i>Atmospheric Chemistry and Physics</i> , 2014, 14, 9513-9535.	1.9	43
51	Development of an aerosol microphysical module: Aerosol Two-dimensional bin module for foRmation and Aging Simulation (ATRAS). <i>Atmospheric Chemistry and Physics</i> , 2014, 14, 10315-10331.	1.9	33
52	Projections of future summertime ozone over the U.S.. <i>Journal of Geophysical Research D: Atmospheres</i> , 2014, 119, 5559-5582.	1.2	69
53	The Separate Physics and Dynamics Experiment (SPADE) framework for determining resolution awareness: A case study of microphysics. <i>Journal of Geophysical Research D: Atmospheres</i> , 2013, 118, 9258-9276.	1.2	13
54	The Lagrangian particle dispersion model FLEXPART-WRF version 3.1. <i>Geoscientific Model Development</i> , 2013, 6, 1889-1904.	1.3	256

#	ARTICLE	IF	CITATIONS
55	Enhanced SOA formation from mixed anthropogenic and biogenic emissions during the CARES campaign. <i>Atmospheric Chemistry and Physics</i> , 2013, 13, 2091-2113.	1.9	146
56	Spectro-microscopic measurements of carbonaceous aerosol aging in Central California. <i>Atmospheric Chemistry and Physics</i> , 2013, 13, 10445-10459.	1.9	56
57	Pollution transport from North America to Greenland during summer 2008. <i>Atmospheric Chemistry and Physics</i> , 2013, 13, 3825-3848.	1.9	34
58	Spatial and temporal variations of new particle formation in East Asia using an NPF-explicit WRF-chem model: North-south contrast in new particle formation frequency. <i>Journal of Geophysical Research D: Atmospheres</i> , 2013, 118, 11,647.	1.2	35
59	The role of circulation features on black carbon transport into the Arctic in the Community Atmosphere Model version 5 (CAM5). <i>Journal of Geophysical Research D: Atmospheres</i> , 2013, 118, 4657-4669.	1.2	64
60	Implications of low volatility SOA and gas-phase fragmentation reactions on SOA loadings and their spatial and temporal evolution in the atmosphere. <i>Journal of Geophysical Research D: Atmospheres</i> , 2013, 118, 3328-3342.	1.2	66
61	Development and validation of a black carbon mixing state resolved three-dimensional model: Aging processes and radiative impact. <i>Journal of Geophysical Research D: Atmospheres</i> , 2013, 118, 2304-2326.	1.2	106
62	Modeling aerosols and their interactions with shallow cumuli during the 2007 CHAPS field study. <i>Journal of Geophysical Research D: Atmospheres</i> , 2013, 118, 1343-1360.	1.2	30
63	Transport and mixing patterns over Central California during the carbonaceous aerosol and radiative effects study (CARES). <i>Atmospheric Chemistry and Physics</i> , 2012, 12, 1759-1783.	1.9	67
64	Characterization of submicron particles influenced by mixed biogenic and anthropogenic emissions using high-resolution aerosol mass spectrometry: results from CARES. <i>Atmospheric Chemistry and Physics</i> , 2012, 12, 8131-8156.	1.9	146
65	Overview of the 2010 Carbonaceous Aerosols and Radiative Effects Study (CARES). <i>Atmospheric Chemistry and Physics</i> , 2012, 12, 7647-7687.	1.9	94
66	Impact of natural and anthropogenic aerosols on stratocumulus and precipitation in the Southeast Pacific: a regional modelling study using WRF-Chem. <i>Atmospheric Chemistry and Physics</i> , 2012, 12, 8777-8796.	1.9	43
67	Physical and chemical properties of the regional mixed layer of Mexico's Megapolis Part II: evaluation of measured and modeled trace gases and particle size distributions. <i>Atmospheric Chemistry and Physics</i> , 2012, 12, 10161-10179.	1.9	2
68	Tropospheric chemistry of internally mixed sea salt and organic particles: Surprising reactivity of NaCl with weak organic acids. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	224
69	Assessing regional scale predictions of aerosols, marine stratocumulus, and their interactions during VOCALS-REx using WRF-Chem. <i>Atmospheric Chemistry and Physics</i> , 2011, 11, 11951-11975.	1.9	99
70	Inclusion of biomass burning in WRF-Chem: impact of wildfires on weather forecasts. <i>Atmospheric Chemistry and Physics</i> , 2011, 11, 5289-5303.	1.9	208
71	Modeling organic aerosols in a megacity: comparison of simple and complex representations of the volatility basis set approach. <i>Atmospheric Chemistry and Physics</i> , 2011, 11, 6639-6662.	1.9	230
72	Evaluating WRF-Chem multi-scale model in simulating aerosol radiative properties over the tropics - A case study over India. <i>Mapan - Journal of Metrology Society of India</i> , 2011, 26, 269-284.	1.0	8

#	ARTICLE	IF	CITATIONS
73	The Aerosol Modeling Testbed: A Community Tool to Objectively Evaluate Aerosol Process Modules. Bulletin of the American Meteorological Society, 2011, 92, 343-360.	1.7	31
74	An overview of the MILAGRO 2006 Campaign: Mexico City emissions and their transport and transformation. Atmospheric Chemistry and Physics, 2010, 10, 8697-8760.	1.9	349
75	An investigation of the sub-grid variability of trace gases and aerosols for global climate modeling. Atmospheric Chemistry and Physics, 2010, 10, 6917-6946.	1.9	62
76	The spatial distribution of mineral dust and its shortwave radiative forcing over North Africa: modeling sensitivities to dust emissions and aerosol size treatments. Atmospheric Chemistry and Physics, 2010, 10, 8821-8838.	1.9	265
77	Microscopic characterization of carbonaceous aerosol particle aging in the outflow from Mexico City. Atmospheric Chemistry and Physics, 2010, 10, 961-976.	1.9	85
78	Modeling organic aerosols in a megacity: potential contribution of semi-volatile and intermediate volatility primary organic compounds to secondary organic aerosol formation. Atmospheric Chemistry and Physics, 2010, 10, 5491-5514.	1.9	340
79	Technical Note: Evaluation of the WRF-Chem "Aerosol Chemical to Aerosol Optical Properties" Module using data from the MILAGRO campaign. Atmospheric Chemistry and Physics, 2010, 10, 7325-7340.	1.9	210
80	Spatial and temporal variations of aerosols around Beijing in summer 2006: 2. Local and column aerosol optical properties. Journal of Geophysical Research, 2010, 115, .	3.3	20
81	Spatial and temporal variations of aerosols around Beijing in summer 2006: Model evaluation and source apportionment. Journal of Geophysical Research, 2009, 114, .	3.3	86
82	Modeling organic aerosols during MILAGRO: importance of biogenic secondary organic aerosols. Atmospheric Chemistry and Physics, 2009, 9, 6949-6981.	1.9	119
83	Evaluating simulated primary anthropogenic and biomass burning organic aerosols during MILAGRO: implications for assessing treatments of secondary organic aerosols. Atmospheric Chemistry and Physics, 2009, 9, 6191-6215.	1.9	138
84	Coupling aerosol-cloud-radiative processes in the WRF-Chem model: Investigating the radiative impact of elevated point sources. Atmospheric Chemistry and Physics, 2009, 9, 945-964.	1.9	318
85	Model for Simulating Aerosol Interactions and Chemistry (MOSAIC). Journal of Geophysical Research, 2008, 113, .	3.3	824
86	Applications of lagrangian dispersion modeling to the analysis of changes in the specific absorption of elemental carbon. Atmospheric Chemistry and Physics, 2008, 8, 1377-1389.	1.9	75
87	Basin-scale wind transport during the MILAGRO field campaign and comparison to climatology using cluster analysis. Atmospheric Chemistry and Physics, 2008, 8, 1209-1224.	1.9	130
88	The T1-T2 study: evolution of aerosol properties downwind of Mexico City. Atmospheric Chemistry and Physics, 2007, 7, 1585-1598.	1.9	124
89	A meteorological overview of the MILAGRO field campaigns. Atmospheric Chemistry and Physics, 2007, 7, 2233-2257.	1.9	199
90	Impact on modeled cloud characteristics due to simplified treatment of uniform cloud condensation nuclei during NEAQS 2004. Geophysical Research Letters, 2007, 34, .	1.5	145

#	ARTICLE	IF	CITATIONS
91	Evolution of ozone, particulates, and aerosol direct radiative forcing in the vicinity of Houston using a fully coupled meteorology-chemistry-aerosol model. <i>Journal of Geophysical Research</i> , 2006, 111, .	3.3	843
92	The performance of RAMS in representing the convective boundary layer structure in a very steep valley. <i>Environmental Fluid Mechanics</i> , 2005, 5, 35-62.	0.7	40
93	Photochemical age determinations in the Phoenix metropolitan area. <i>Journal of Geophysical Research</i> , 2003, 108, n/a-n/a.	3.3	60
94	An Evaluation of the MM5, RAMS, and Meso-Eta Models at Subkilometer Resolution Using VTMX Field Campaign Data in the Salt Lake Valley. <i>Monthly Weather Review</i> , 2003, 131, 1301-1322.	0.5	121
95	Forecasts of Valley Circulations Using the Terrain-Following and Step-Mountain Vertical Coordinates in the Meso-Eta Model. <i>Weather and Forecasting</i> , 2003, 18, 1192-1206.	0.5	9
96	THE VTMX 2000 CAMPAIGN. <i>Bulletin of the American Meteorological Society</i> , 2002, 83, 537-551.	1.7	115
97	Unexpectedly high concentrations of molecular chlorine in coastal air. <i>Nature</i> , 1998, 394, 353-356.	13.7	584
98	The IMADA-AVER Boundary Layer Experiment in the Mexico City Area. <i>Bulletin of the American Meteorological Society</i> , 1998, 79, 2497-2508.	1.7	100
99	A Case Study of the Great Plains Low-Level Jet Using Wind Profiler Network Data and a High-Resolution Mesoscale Model. <i>Monthly Weather Review</i> , 1996, 124, 785-806.	0.5	117
100	The Effect of Heterogeneous Soil Moisture on a Summer Baroclinic Circulation in the Central United States. <i>Monthly Weather Review</i> , 1991, 119, 2140-2167.	0.5	67
101	A Two-Dimensional Numerical Sensitivity Study of the Great Plains Low-Level Jet. <i>Monthly Weather Review</i> , 1990, 118, 151-164.	0.5	46
102	Application of a quasi-nonhydrostatic parameterization for numerically modeling neutral flow over an isolated hill. <i>Boundary-Layer Meteorology</i> , 1988, 44, 285-304.	1.2	3
103	Evaluation of an alternative method for numerically modeling nonhydrostatic flows over irregular terrain. <i>Boundary-Layer Meteorology</i> , 1988, 44, 181-206.	1.2	5