Sebastian D Eastham

List of Publications by Year
in descending order

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44 papers	1,921 citations	331538 21 h-index	265120 42 g-index
70 all docs	70 docs citations	70 times ranked	2899 citing authors

#	Article	IF	Citations
1	Global impacts of tropospheric halogens (Cl, Br, I) on oxidants and composition in GEOS-Chem. Atmospheric Chemistry and Physics, 2016, 16, 12239-12271.	1.9	231
2	Premature mortality related to United States cross-state air pollution. Nature, 2020, 578, 261-265.	13.7	221
3	Development and evaluation of the unified troposphericâ€“stratospheric chemistry extension (UCX) for the global chemistry-transport model GEOS-Chem. Atmospheric Environment, 2014, 89, 52-63.	1.9	166
4	The role of chlorine in global tropospheric chemistry. Atmospheric Chemistry and Physics, 2019, 19, 3981-4003.	1.9	160
5	Global, regional and local health impacts of civil aviation emissions. Environmental Research Letters, 2015, 10, 034001.	2.2	118
6	Impact of the Volkswagen emissions control defeat device on US public health. Environmental Research Letters, 2015, 10, 114005.	2.2	81
7	Limits on the ability of global Eulerian models to resolve intercontinental transport of chemical plumes. Atmospheric Chemistry and Physics, 2017, 17, 2543-2553.	1.9	68
8	GEOS-Chem High Performance (GCHP v11-02c): a next-generation implementation of the GEOS-Chem chemical transport model for massively parallel applications. Geoscientific Model Development, 2018, 11, 2941-2953.	1.3	58
9	Global tropospheric halogen (Cl, Br, I) chemistry and its impact on oxidants. Atmospheric Chemistry and Physics, 2021, 21, 13973-13996.	1.9	57
10	Public health impacts of excess NO _x emissions from Volkswagen diesel passenger vehicles in Germany. Environmental Research Letters, 2017, 12, 034014.	2.2	55
11	Errors and improvements in the use of archived meteorological data for chemical transport modeling: an analysis using GEOS-ChemÂv11-01 driven by GEOS-5 meteorology. Geoscientific Model Development, 2018, 11, 305-319.	1.3	49
12	Quantifying the impact of sulfate geoengineering on mortality from air quality and UV-B exposure. Atmospheric Environment, 2018, 187, 424-434.	1.9	48
13	Marginal climate and air quality costs of aviation emissions. Environmental Research Letters, 2019, 14, 114031.	2.2	43
14	Air pollution impacts of COVID-19â€“related containment measures. Science Advances, 2021, 7, .	4.7	42
15	Effect of sea salt aerosol on tropospheric bromine chemistry. Atmospheric Chemistry and Physics, 2019, 19, 6497-6507.	1.9	36
16	Aviation-attributable ozone as a driver for changes in mortality related to air quality and skin cancer. Atmospheric Environment, 2016, 144, 17-23.	1.9	33
17	Comparison of model estimates of the effects of aviation emissions on atmospheric ozone and methane. Geophysical Research Letters, 2013, 40, 6004-6009.	1.5	27
18	Country- and manufacturer-level attribution of air quality impacts due to excess NOx emissions from diesel passenger vehicles in Europe. Atmospheric Environment, 2018, 189, 89-97.	1.9	27

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19	Description and Evaluation of the MIT Earth System Model (MESM). Journal of Advances in Modeling Earth Systems, 2018, 10, 1759-1789.	1.3	25
20	WRF-GC (v1.0): online coupling of WRF (v3.9.1.1) and GEOS-Chem (v12.2.1) for regional atmospheric chemistry modeling â€“ Part 1: Description of the one-way model. Geoscientific Model Development, 2020, 13, 3241-3265.	1.3	25
21	Impact of Rocket Launch and Space Debris Air Pollutant Emissions on Stratospheric Ozone and Global Climate. Earth's Future, 2022, 10, .	2.4	24
22	Enabling Highâ€Performance Cloud Computing for Earth Science Modeling on Over a Thousand Cores: Application to the GEOSâ€Chem Atmospheric Chemistry Model. Journal of Advances in Modeling Earth Systems, 2020, 12, e2020MS002064.	1.3	23
23	Harmonized Emissions Component (HEMCO) 3.0 as a versatile emissions component for atmospheric models: application in the GEOS-Chem, NASA GEOS, WRF-GC, CESM2, NOAA GEFS-Aerosol, and NOAA UFS models. Geoscientific Model Development, 2021, 14, 5487-5506.	1.3	23
24	The importance of vertical resolution in the free troposphere for modeling intercontinental plumes. Atmospheric Chemistry and Physics, 2018, 18, 6039-6055.	1.9	22
25	Global air quality and health impacts of domestic and international shipping. Environmental Research Letters, 2021, 16, 084055.	2.2	22
26	An intercomparative study of the effects of aircraft emissions on surface air quality. Journal of Geophysical Research D: Atmospheres, 2017, 122, 8325-8344.	1.2	21
27	The Multi-Scale Infrastructure for Chemistry and Aerosols (MUSICA). Bulletin of the American Meteorological Society, 2020, 101, E1743-E1760.	1.7	21
28	Post-combustion emissions control in aero-gas turbine engines. Energy and Environmental Science, 2021, 14, 916-930.	15.6	16
29	Isotopic ordering in atmospheric O₂ as a tracer of ozone photochemistry and the tropical atmosphere. Journal of Geophysical Research D: Atmospheres, 2016, 121, 12,541.	1.2	15
30	Enabling Immediate Access to Earth Science Models through Cloud Computing: Application to the GEOS-Chem Model. Bulletin of the American Meteorological Society, 2019, 100, 1943-1960.	1.7	14
31	Grid-stretching capability for the GEOS-Chem 13.0.0 atmospheric chemistry model. Geoscientific Model Development, 2021, 14, 5977-5997.	1.3	14
32	Contrail coverage over the United States before and during the COVID-19 pandemic. Environmental Research Letters, 2022, 17, 034039.	2.2	14
33	Evolution of sectoral emissions and contributions to mortality from particulate matter exposure in the Asia-Pacific region between 2010 and 2015. Atmospheric Environment, 2019, 216, 116916.	1.9	13
34	Development of the global atmospheric chemistry general circulation model BCC-GEOS-Chem v1.0: model description and evaluation. Geoscientific Model Development, 2020, 13, 3817-3838.	1.3	12
35	NASA GEOS Composition Forecast Modeling System GEOSâ€CF v1.0: Stratospheric Composition. Journal of Advances in Modeling Earth Systems, 2022, 14, .	1.3	12
36	Reducing Uncertainty in Contrail Radiative Forcing Resulting from Uncertainty in Ice Crystal Properties. Environmental Science and Technology Letters, 2020, 7, 371-375.	3.9	11

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37	Radiation dose to the global flying population. Journal of Radiological Protection, 2016, 36, 93-103.	0.6	9
38	The role of plume-scale processes in long-term impacts of aircraft emissions. Atmospheric Chemistry and Physics, 2020, 20, 5697-5727.	1.9	9
39	Impacts of multi-layer overlap on contrail radiative forcing. Atmospheric Chemistry and Physics, 2021, 21, 1649-1681.	1.9	9
40	Mortality tradeoff between air quality and skin cancer from changes in stratospheric ozone. Environmental Research Letters, 2018, 13, 034035.	2.2	8
41	Impacts of a near-future supersonic aircraft fleet on atmospheric composition and climate. Environmental Science Atmospheres, 2022, 2, 388-403.	0.9	6
42	A novel method for rapid comparative quantitative analysis of nuclear fuel cycles. Annals of Nuclear Energy, 2012, 42, 80-88.	0.9	5
43	Developing a Plumeâ€inâ€Grid Model for Plume Evolution in the Stratosphere. Journal of Advances in Modeling Earth Systems, 2022, 14, .	1.3	3
44	Identifying the ozone-neutral aircraft cruise altitude. Atmospheric Environment, 2022, 276, 119057.	1.9	2