B T Johnson

List of Publications by Year in descending order

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68 papers	4,919 citations	117571 34 h-index	106281 65 g-index
113 all docs	113 docs citations	113 times ranked	5437 citing authors

#	Article	IF	Citations
1	UKESM1: Description and Evaluation of the U.K. Earth System Model. Journal of Advances in Modeling Earth Systems, 2019, 11, 4513-4558.	1.3	448
2	The Met Office Unified Model Global Atmosphere 7.0/7.1 and JULES Global Land 7.0 configurations. Geoscientific Model Development, 2019, 12, 1909-1963.	1.3	372
3	The semi-direct aerosol effect: Impact of absorbing aerosols on marine stratocumulus. Quarterly Journal of the Royal Meteorological Society, 2004, 130, 1407-1422.	1.0	333
4	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
5	Aging of biomass burning aerosols over West Africa: Aircraft measurements of chemical composition, microphysical properties, and emission ratios. Journal of Geophysical Research, 2008, 113, .	3.3	238
6	Strong constraints on aerosolâ€“cloud interactions from volcanic eruptions. Nature, 2017, 546, 485-491.	13.7	191
7	Overview of the Dust and Biomassâ€burning Experiment and African Monsoon Multidisciplinary Analysis Special Observing Periodâ€0. Journal of Geophysical Research, 2008, 113, .	3.3	188
8	Physical and optical properties of mineral dust aerosol during the Dust and Biomassâ€burning Experiment. Journal of Geophysical Research, 2008, 113, .	3.3	164
9	In situ observations of volcanic ash clouds from the FAAM aircraft during the eruption of EyjafjallajÃ¶kull in 2010. Journal of Geophysical Research, 2012, 117, .	3.3	135
10	Aircraft measurements of biomass burning aerosol over West Africa during DABEX. Journal of Geophysical Research, 2008, 113, .	3.3	108
11	Operational prediction of ash concentrations in the distal volcanic cloud from the 2010 EyjafjallajÃ¶kull eruption. Journal of Geophysical Research, 2012, 117, .	3.3	108
12	Improved Aerosol Processes and Effective Radiative Forcing in HadGEM3 and UKESM1. Journal of Advances in Modeling Earth Systems, 2018, 10, 2786-2805.	1.3	106
13	Ground-based aerosol characterization during the South American Biomass Burning Analysis (SAMBBA) field experiment. Atmospheric Chemistry and Physics, 2014, 14, 12069-12083.	1.9	103
14	Airborne lidar observations of the 2010 EyjafjallajÃ¶kull volcanic ash plume. Journal of Geophysical Research, 2011, 116, .	3.3	96
15	Biomass burning aerosols in most climate models are too absorbing. Nature Communications, 2021, 12, 277.	5.8	84
16	Observations of mesoscale and boundary-layer scale circulations affecting dust transport and uplift over the Sahara. Atmospheric Chemistry and Physics, 2008, 8, 6979-6993.	1.9	83
17	Performance assessment of a volcanic ash transport model miniâ€ensemble used for inverse modeling of the 2010 EyjafjallajÃ¶kull eruption. Journal of Geophysical Research, 2012, 117, .	3.3	83
18	Implementation of U.K. Earth System Models for CMIP6. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS001946.	1.3	83

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19	Description and evaluation of aerosol in UKESM1 and HadGEM3-GC3.1 CMIP6 historical simulations. Geoscientific Model Development, 2020, 13, 6383-6423.	1.3	83
20	Vertical distribution and radiative effects of mineral dust and biomass burning aerosol over West Africa during DABEX. Journal of Geophysical Research, 2008, 113, .	3.3	77
21	Modeled and observed atmospheric radiation balance during the West African dry season: Role of mineral dust, biomass burning aerosol, and surface albedo. Journal of Geophysical Research, 2008, 113, .	3.3	73
22	Physical and optical properties of mineral dust aerosol measured by aircraft during the GERBILS campaign. Quarterly Journal of the Royal Meteorological Society, 2011, 137, 1117-1130.	1.0	71
23	Effective radiative forcing from emissions of reactive gases and aerosols â€“ a multi-model comparison. Atmospheric Chemistry and Physics, 2021, 21, 853-874.	1.9	65
24	The effect of South American biomass burning aerosol emissions on the regional climate. Atmospheric Chemistry and Physics, 2018, 18, 5321-5342.	1.9	62
25	Large simulated radiative effects of smoke in the south-east Atlantic. Atmospheric Chemistry and Physics, 2018, 18, 15261-15289.	1.9	61
26	Motivation, rationale and key results from the GERBILS Saharan dust measurement campaign. Quarterly Journal of the Royal Meteorological Society, 2011, 137, 1106-1116.	1.0	58
27	The CLoudâ€“Aerosolâ€“Radiation Interaction and Forcing: YearÂ2017 (CLARIFY-2017) measurement campaign. Atmospheric Chemistry and Physics, 2021, 21, 1049-1084.	1.9	57
28	Physicoâ€chemical and optical properties of Sahelian and Saharan mineral dust: in situ measurements during the GERBILS campaign. Quarterly Journal of the Royal Meteorological Society, 2011, 137, 1193-1210.	1.0	53
29	Shortâ€wave and longâ€wave radiative properties of Saharan dust aerosol. Quarterly Journal of the Royal Meteorological Society, 2011, 137, 1149-1167.	1.0	52
30	A case study of observations of volcanic ash from the EyjafjallajÃ¶kull eruption: 1. In situ airborne observations. Journal of Geophysical Research, 2012, 117, .	3.3	52
31	Sensitivity analysis of dispersion modeling of volcanic ash from EyjafjallajÃ¶kull in May 2010. Journal of Geophysical Research, 2012, 117, .	3.3	48
32	A case study of observations of volcanic ash from the EyjafjallajÃ¶kull eruption: 2. Airborne and satellite radiative measurements. Journal of Geophysical Research, 2012, 117, .	3.3	47
33	Measurements of aerosol properties from aircraft, satellite and groundâ€based remote sensing: a caseâ€study from the Dust and Biomassâ€burning Experiment (DABEX). Quarterly Journal of the Royal Meteorological Society, 2009, 135, 922-934.	1.0	46
34	Impacts of Amazonia biomass burning aerosols assessed from short-range weather forecasts. Atmospheric Chemistry and Physics, 2015, 15, 12251-12266.	1.9	46
35	Evaluation of biomass burning aerosols in the HadGEM3 climate model with observations from the SAMBBA field campaign. Atmospheric Chemistry and Physics, 2016, 16, 14657-14685.	1.9	41
36	Modeling of the solar radiative impact of biomass burning aerosols during the Dust and Biomassâ€burning Experiment (DABEX). Journal of Geophysical Research, 2008, 113, .	3.3	34

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37	Ensembles of Global Climate Model Variants Designed for the Quantification and Constraint of Uncertainty in Aerosols and Their Radiative Forcing. Journal of Advances in Modeling Earth Systems, 2019, 11, 3728-3754.	1.3	33
38	Assessment of the Met Office dust forecast model using observations from the GERBILS campaign. Quarterly Journal of the Royal Meteorological Society, 2011, 137, 1131-1148.	1.0	31
39	Simulation of aerosol radiative effects over West Africa during DABEX and AMMA SOP-0. Journal of Geophysical Research, 2011, 116, .	3.3	29
40	Aircraft observations and model simulations of concentration and particle size distribution in the EyjafjallajÃ¶kull volcanic ash cloud. Atmospheric Chemistry and Physics, 2013, 13, 1277-1291.	1.9	29
41	Are Changes in Atmospheric Circulation Important for Black Carbon Aerosol Impacts on Clouds, Precipitation, and Radiation?. Journal of Geophysical Research D: Atmospheres, 2019, 124, 7930-7950.	1.2	29
42	Assessment of pre-industrial to present-day anthropogenic climate forcing in UKESM1. Atmospheric Chemistry and Physics, 2021, 21, 1211-1243.	1.9	29
43	On the vertical distribution of smoke in the Amazonian atmosphere during the dry season. Atmospheric Chemistry and Physics, 2016, 16, 2155-2174.	1.9	28
44	Vertical structure of aerosols and water vapor over West Africa during the African monsoon dry season. Atmospheric Chemistry and Physics, 2009, 9, 8017-8038.	1.9	27
45	Transformation and ageing of biomass burning carbonaceous aerosol over tropical South America from aircraft in situ measurements during SAMBBA. Atmospheric Chemistry and Physics, 2020, 20, 5309-5326.	1.9	26
46	Vertical and spatial distribution of dust from aircraft and satellite measurements during the GERBILS field campaign. Geophysical Research Letters, 2009, 36, .	1.5	25
47	Climate models generally underrepresent the warming by Central Africa biomass-burning aerosols over the Southeast Atlantic. Science Advances, 2021, 7, eabg9998.	4.7	25
48	The Semidirect Aerosol Effect: Comparison of a Single-Column Model with Large Eddy Simulation for Marine Stratocumulus. Journal of Climate, 2005, 18, 119-130.	1.2	24
49	Models transport Saharan dust too low in the atmosphere: a comparison of the MetUM and CAMS forecasts with observations. Atmospheric Chemistry and Physics, 2020, 20, 12955-12982.	1.9	24
50	Multiâ€sensor satellite remote sensing of dust aerosols over North Africa during GERBILS. Quarterly Journal of the Royal Meteorological Society, 2011, 137, 1168-1178.	1.0	23
51	Assessing hazards to aviation from sulfur dioxide emitted by explosive Icelandic eruptions. Journal of Geophysical Research D: Atmospheres, 2014, 119, 14,180.	1.2	23
52	Effects of forcing differences and initial conditions on inter-model agreement in the VolMIP volc-pinatubo-full experiment. Geoscientific Model Development, 2022, 15, 2265-2292.	1.3	22
53	Do Regional Aerosols Contribute to the Riverine Export of Dissolved Black Carbon?. Journal of Geophysical Research G: Biogeosciences, 2017, 122, 2925-2938.	1.3	21
54	Near-field emission profiling of tropical forest and Cerrado fires in Brazil during SAMBBA 2012. Atmospheric Chemistry and Physics, 2018, 18, 5619-5638.	1.9	19

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55	The vertical distribution of biomass burning pollution over tropical South America from aircraft in situ measurements during SAMBBA. Atmospheric Chemistry and Physics, 2019, 19, 5771-5790.	1.9	19
56	Fast responses on pre-industrial climate from present-day aerosols in a CMIP6 multi-model study. Atmospheric Chemistry and Physics, 2020, 20, 8381-8404.	1.9	18
57	Environmental Controls on the Riverine Export of Dissolved Black Carbon. Global Biogeochemical Cycles, 2019, 33, 849-874.	1.9	16
58	Reappraisal of the Climate Impacts of Ozoneâ€Ðepleting Substances. Geophysical Research Letters, 2020, 47, e2020GL088295.	1.5	16
59	Forecasting the monsoon on daily to seasonal timeâ€scales in support of a field campaign. Quarterly Journal of the Royal Meteorological Society, 2020, 146, 2906-2927.	1.0	13
60	Satellite remote sensing analysis of the 2010 EyjafjallajÃ¶kull volcanic ash cloud over the North Sea during 4â€“18 May 2010. Journal of Geophysical Research, 2012, 117, .	3.3	10
61	Regional Features of Long-Term Exposure to PM2.5 Air Quality over Asia under SSP Scenarios Based on CMIP6 Models. International Journal of Environmental Research and Public Health, 2021, 18, 6817.	1.2	10
62	Evaluation of a new 12Âkm regional perturbed parameter ensemble over Europe. Climate Dynamics, 2022, 58, 879-903.	1.7	10
63	Exploring the sensitivity of atmospheric nitrate concentrations to nitric acid uptake rate using the Met Office's Unified Model. Atmospheric Chemistry and Physics, 2021, 21, 15901-15927.	1.9	10
64	Multiplatform analysis of the radiative effects and heating rates for an intense dust storm on 21 June 2007. Journal of Geophysical Research D: Atmospheres, 2013, 118, 9316-9329.	1.2	8
65	Overview of the South American biomass burning analysis (SAMBBA) field experiment. , 2013, , .		5
66	The Impacts of Aerosol Emissions on Historical Climate in UKESM1. Atmosphere, 2020, 11, 1095.	1.0	5
67	Assessing the consequences of including aerosol absorption in potential stratospheric aerosol injection climate intervention strategies. Atmospheric Chemistry and Physics, 2022, 22, 6135-6150.	1.9	3
68	Observed aerosol characteristics to improve forward-modelled attenuated backscatter in urban areas. Atmospheric Environment, 2020, 224, 117177.	1.9	1