Harri Kokkola

List of Publications by Year
in descending order

78 papers	3,114 citations	147726 31 h-index	189801 50 g-index
152 all docs	152 docs citations	152 times ranked	3879 citing authors

#	Article	IF	Citations
1	The AeroCom evaluation and intercomparison of organic aerosol in global models. Atmospheric Chemistry and Physics, 2014, 14, 10845-10895.	1.9	363
2	Sensitivity of aerosol concentrations and cloud properties to nucleation and secondary organic distribution in ECHAM5-HAM global circulation model. Atmospheric Chemistry and Physics, 2009, 9, 1747-1766.	1.9	153
3	Intercomparison and evaluation of global aerosol microphysical properties among AeroCom models of a range of complexity. Atmospheric Chemistry and Physics, 2014, 14, 4679-4713.	1.9	148
4	SALSA â€“ a Sectional Aerosol module for Large Scale Applications. Atmospheric Chemistry and Physics, 2008, 8, 2469-2483.	1.9	110
5	Comprehensively accounting for the effect of giant CCN in cloud activation parameterizations. Atmospheric Chemistry and Physics, 2010, 10, 2467-2473.	1.9	106
6	The global aerosolâ€“climate model ECHAM6.3â€“HAM2.3 â€“ Part 1: Aerosol evaluation. Geoscientific Model Development, 2019, 12, 1643-1677.	1.3	103
7	AeroCom phase III multi-model evaluation of the aerosol life cycle and optical properties using ground- and space-based remote sensing as well as surface in situ observations. Atmospheric Chemistry and Physics, 2021, 21, 87-128.	1.9	96
8	Biomass burning aerosols in most climate models are too absorbing. Nature Communications, 2021, 12, 277.	5.8	84
9	What controls the vertical distribution of aerosol? Relationships between process sensitivity in HadGEM3â€“UKCA and inter-model variation from AeroCom Phase II. Atmospheric Chemistry and Physics, 2016, 16, 2221-2241.	1.9	82
10	Chemical composition, main sources and temporal variability of PM₁ aerosols in southern African grassland. Atmospheric Chemistry and Physics, 2014, 14, 1909-1927.	1.9	81
11	Aerosolâ€“fog interaction and the transition to well-mixed radiation fog. Atmospheric Chemistry and Physics, 2018, 18, 7827-7840.	1.9	78
12	Evaluation of observed and modelled aerosol lifetimes using radioactive tracers of opportunity and an ensemble of 19 global models. Atmospheric Chemistry and Physics, 2016, 16, 3525-3561.	1.9	75
13	Aerosol climate feedback due to decadal increases in Southern Hemisphere wind speeds. Geophysical Research Letters, 2010, 37, .	1.5	65
14	The role of low volatile organics on secondary organic aerosol formation. Atmospheric Chemistry and Physics, 2014, 14, 1689-1700.	1.9	64
15	Aerosol microphysics modules in the framework of the ECHAM5 climate model â€“ intercomparison under stratospheric conditions. Geoscientific Model Development, 2009, 2, 97-112.	1.3	59
16	Evaluation of the sectional aerosol microphysics module SALSA implementation in ECHAM5-HAM aerosol-climate model. Geoscientific Model Development, 2012, 5, 845-868.	1.3	59
17	Cloud formation of particles containing humic-like substances. Geophysical Research Letters, 2006, 33, n/a-n/a.	1.5	52
18	SALSA2.0: The sectional aerosol module of the aerosolâ€“chemistryâ€“climate model ECHAM6.3.0-HAM2.3-MOZ1.0. Geoscientific Model Development, 2018, 11, 3833-3863.	1.3	52

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19	The effects of increasing atmospheric ozone on biogenic monoterpene profiles and the formation of secondary aerosols. Atmospheric Environment, 2007, 41, 4877-4887.	1.9	51
20	Surfactant effects in global simulations of cloud droplet activation. Geophysical Research Letters, 2012, 39, .	1.5	51
21	The chemistryâ€“climate model ECHAM6.3-HAM2.3-MOZ1.0. Geoscientific Model Development, 2018, 11, 1695-1723.	1.3	51
22	Direct and indirect effects of sea spray geoengineering and the role of injected particle size. Journal of Geophysical Research, 2012, 117, .	3.3	49
23	A simple representation of surface active organic aerosol in cloud droplet formation. Atmospheric Chemistry and Physics, 2011, 11, 4073-4083.	1.9	48
24	Effect of aerosol concentration and absorbing aerosol on the radiation fog life cycle. Atmospheric Environment, 2016, 133, 26-33.	1.9	47
25	MATCH-SALSA â€“ Multi-scale Atmospheric Transport and CHemistry model coupled to the SALSA aerosol microphysics model â€“ Part 1: Model description and evaluation. Geoscientific Model Development, 2015, 8, 171-189.	1.3	46
26	The global aerosolâ€“climate model ECHAM6.3â€“HAM2.3 â€“ Part 2: Cloud evaluation, aerosol radiative forcing, and climate sensitivity. Geoscientific Model Development, 2019, 12, 3609-3639.	1.3	44
27	Radiative and climate impacts of a large volcanic eruption during stratospheric sulfur geoengineering. Atmospheric Chemistry and Physics, 2016, 16, 305-323.	1.9	40
28	UCLALESâ€“SALSA v1.0: a large-eddy model with interactive sectional microphysics for aerosol, clouds and precipitation. Geoscientific Model Development, 2017, 10, 169-188.	1.3	39
29	Significance of the organic aerosol driven climate feedback in the boreal area. Nature Communications, 2021, 12, 5637.	5.8	38
30	Geographical and diurnal features of amineâ€enhanced boundary layer nucleation. Journal of Geophysical Research D: Atmospheres, 2015, 120, 9606-9624.	1.2	37
31	Climate and air quality trade-offs in altering ship fuel sulfur content. Atmospheric Chemistry and Physics, 2013, 13, 12059-12071.	1.9	35
32	Global modelling of direct and indirect effects of sea spray aerosol using a source function encapsulating wave state. Atmospheric Chemistry and Physics, 2014, 14, 11731-11752.	1.9	33
33	Implementation of the sectional aerosol module SALSA2.0 into the PALM model system 6.0: model development and first evaluation. Geoscientific Model Development, 2019, 12, 1403-1422.	1.3	31
34	Roadside aerosol study using hygroscopic, organic and volatility TDMAs: Characterization and mixing state. Atmospheric Environment, 2010, 44, 976-986.	1.9	30
35	Climate impacts of changing aerosol emissions since 1996. Geophysical Research Letters, 2014, 41, 4711-4718.	1.5	30
36	Isoprene-derived secondary organic aerosol in the global aerosolâ€“chemistryâ€“climate model ECHAM6.3.0â€“HAM2.3â€“MOZ1.0. Geoscientific Model Development, 2018, 11, 3235-3260.	1.3	30

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37	Resolving nanoparticle growth mechanisms from size- and time-dependent growth rate analysis. Atmospheric Chemistry and Physics, 2018, 18, 1307-1323.	1.9	28
38	Partitioning of semivolatile surface-active compounds between bulk, surface and gas phase. Geophysical Research Letters, 2011, 38, n/a-n/a.	1.5	27
39	Aerosol absorption in global models from AeroCom phase III. Atmospheric Chemistry and Physics, 2021, 21, 15929-15947.	1.9	27
40	Radiative and climate effects of stratospheric sulfur geoengineering using seasonally varying injection areas. Atmospheric Chemistry and Physics, 2017, 17, 6957-6974.	1.9	26
41	On the formation of radiation fogs under heavily polluted conditions. Atmospheric Chemistry and Physics, 2003, 3, 581-589.	1.9	25
42	Direct radiative effect by brown carbon over the Indo-Gangetic Plain. Atmospheric Chemistry and Physics, 2015, 15, 12731-12740.	1.9	24
43	Retrieval of aerosol optical depth from surface solar radiation measurements using machine learning algorithms, non-linear regression and a radiative transfer-based look-up table. Atmospheric Chemistry and Physics, 2016, 16, 8181-8191.	1.9	21
44	The regional aerosol-climate model REMO-HAM. Geoscientific Model Development, 2012, 5, 1323-1339.	1.3	19
45	A global modelâ€“measurement evaluation of particle light scattering coefficients at elevated relative humidity. Atmospheric Chemistry and Physics, 2020, 20, 10231-10258.	1.9	19
46	Parameterization of the nitric acid effect on CCN activation. Atmospheric Chemistry and Physics, 2005, 5, 879-885.	1.9	18
47	Estimating atmospheric nucleation rates from size distribution measurements: Analytical equations for the case of size dependent growth rates. Journal of Aerosol Science, 2014, 69, 13-20.	1.8	18
48	Assessment of cloud-related fine-mode AOD enhancements based on AERONET SDA product. Atmospheric Chemistry and Physics, 2017, 17, 5991-6001.	1.9	17
49	KÃ¶hler theory for a polydisperse droplet population in the presence of a soluble trace gas, and an application to stratospheric STS droplet growth. Atmospheric Chemistry and Physics, 2003, 3, 2139-2146.	1.9	16
50	Correction of approximation errors with Random Forests applied to modelling of cloud droplet formation. Geoscientific Model Development, 2013, 6, 2087-2098.	1.3	15
51	Effects of black carbon mitigation on Arctic climate. Atmospheric Chemistry and Physics, 2020, 20, 5527-5546.	1.9	15
52	Effect of aerosol size distribution changes on AOD, CCN and cloud droplet concentration: Case studies from Erfurt and Melpitz, Germany. Journal of Geophysical Research, 2012, 117, .	3.3	14
53	Soluble trace gas effect on cloud condensation nuclei activation: Influence of initial equilibration on cloud model results. Journal of Geophysical Research, 2005, 110, .	3.3	12
54	Correction of Model Reduction Errors in Simulations. SIAM Journal of Scientific Computing, 2018, 40, B305-B327.	1.3	12

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55	Aerosol Effect on the Cloud Phase of Lowâ€Level Clouds Over the Arctic. Journal of Geophysical Research D: Atmospheres, 2019, 124, 7886-7899.	1.2	12
56	Evaluation of aerosol and cloud properties in three climate models using MODIS observations and its corresponding COSP simulator, as well as their application in aerosolâ€"cloud interactions. Atmospheric Chemistry and Physics, 2020, 20, 1607-1626.	1.9	12
57	Dependency of the impacts of geoengineering on the stratospheric sulfur injection strategy â€" PartÂ1: Intercomparison of modal and sectional aerosol modules. Atmospheric Chemistry and Physics, 2022, 22, 93-118.	1.9	12
58	Reallocation in modal aerosol models: impacts on predicting aerosol radiative effects. Geoscientific Model Development, 2014, 7, 161-174.	1.3	11
59	Brightening of the global cloud field by nitric acid and the associated radiative forcing. Atmospheric Chemistry and Physics, 2012, 12, 7625-7633.	1.9	10
60	Precipitation enhancement in stratocumulus clouds through airborne seeding: sensitivity analysis by UCLALES-SALSA. Atmospheric Chemistry and Physics, 2021, 21, 1035-1048.	1.9	10
61	Technical note: Analytical formulae for the critical supersaturations and droplet diameters of CCN containing insoluble material. Atmospheric Chemistry and Physics, 2008, 8, 1985-1988.	1.9	9
62	The influence of nitric acid on the cloud processing of aerosol particles. Atmospheric Chemistry and Physics, 2006, 6, 1627-1634.	1.9	8
63	Summertime Aerosol Radiative Effects and Their Dependence on Temperature over the Southeastern USA. Atmosphere, 2018, 9, 180.	1.0	8
64	Integration of prognostic aerosolâ€"cloud interactions in a chemistry transport model coupled offline to a regional climate model. Geoscientific Model Development, 2015, 8, 1885-1898.	1.3	8
65	In-cloud scavenging scheme for sectional aerosol modules â€" implementation in the framework of the Sectional Aerosol module for Large Scale Applications version 2.0 (SALSA2.0) global aerosol module. Geoscientific Model Development, 2020, 13, 6215-6235.	1.3	8
66	Stratospheric passenger flights are likely an inefficient geoengineering strategy. Environmental Research Letters, 2012, 7, 034021.	2.2	6
67	Modelling artificial sea salt emission in large eddy simulations. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2014, 372, 20140051.	1.6	6
68	A global process-based study of marine CCN trends and variability. Atmospheric Chemistry and Physics, 2014, 14, 13631-13642.	1.9	6
69	Technical note: Parameterising cloud base updraft velocity of marine stratocumuli. Atmospheric Chemistry and Physics, 2022, 22, 4523-4537.	1.9	5
70	Optimal noise control in a carpentry plant. Applied Acoustics, 2000, 61, 37-43.	1.7	4
71	Modelling mixed-phase clouds with the large-eddy model UCLALESâ€"SALSA. Atmospheric Chemistry and Physics, 2020, 20, 11639-11654.	1.9	4
72	Growth of upper tropospheric aerosols due to uptake of HNO₃. Atmospheric Chemistry and Physics, 2004, 4, 549-556.	1.9	3

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73	Observations on aerosol optical properties and scavenging during cloud events. Atmospheric Chemistry and Physics, 2021, 21, 1683-1695.	1.9	3
74	Comparing the Radiative Forcings of the Anthropogenic Aerosol Emissions From Chile and Mexico. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD033364.	1.2	3
75	Changes in urban air pollution after a shift in anthropogenic activity analysed with ensemble learning, competitive learning and unsupervised clustering. Atmospheric Pollution Research, 2022, 13, 101393.	1.8	3
76	Insect Herbivory Caused Plant Stress Emissions Increases the Negative Radiative Forcing of Aerosols. Journal of Geophysical Research D: Atmospheres, 2022, 127, .	1.2	3
77	From nuclear power to coal power: Aerosolâ€induced health and radiative effects. Journal of Geophysical Research D: Atmospheres, 2015, 120, 12631-12643.	1.2	2
78	The effect of marine ice-nucleating particles on mixed-phase clouds. Atmospheric Chemistry and Physics, 2022, 22, 3763-3778.	1.9	2