

Paul Connolly

List of Publications by Year in descending order

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Version: 2024-02-01

70
papers

3,547
citations

159585

30
h-index

161849

54
g-index

80
all docs

80
docs citations

80
times ranked

3064
citing authors

#	ARTICLE	IF	CITATIONS
1	A Particle-Surface-Area-Based Parameterization of Immersion Freezing on Desert Dust Particles. <i>Journals of the Atmospheric Sciences</i> , 2012, 69, 3077-3092.	1.7	338
2	Efficiency of the deposition mode ice nucleation on mineral dust particles. <i>Atmospheric Chemistry and Physics</i> , 2006, 6, 3007-3021.	4.9	328
3	Studies of heterogeneous freezing by three different desert dust samples. <i>Atmospheric Chemistry and Physics</i> , 2009, 9, 2805-2824.	4.9	291
4	Some ice nucleation characteristics of Asian and Saharan desert dust. <i>Atmospheric Chemistry and Physics</i> , 2006, 6, 2991-3006.	4.9	177
5	Marine cloud brightening. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2012, 370, 4217-4262.	3.4	125
6	Scavenging of black carbon in mixed phase clouds at the high alpine site Jungfraujoch. <i>Atmospheric Chemistry and Physics</i> , 2007, 7, 1797-1807.	4.9	123
7	South East Pacific atmospheric composition and variability sampled along 20° S during VOCALS-REx. <i>Atmospheric Chemistry and Physics</i> , 2011, 11, 5237-5262.	4.9	119
8	Observations of ice multiplication in a weakly convective cell embedded in supercooled mid-level stratus. <i>Atmospheric Chemistry and Physics</i> , 2011, 11, 257-273.	4.9	119
9	Cloud droplet number enhanced by co-condensation of organic vapours. <i>Nature Geoscience</i> , 2013, 6, 443-446.	12.9	105
10	A laboratory investigation into the aggregation efficiency of small ice crystals. <i>Atmospheric Chemistry and Physics</i> , 2012, 12, 2055-2076.	4.9	97
11	Ice formation and development in aged, wintertime cumulus over the UK: observations and modelling. <i>Atmospheric Chemistry and Physics</i> , 2012, 12, 4963-4985.	4.9	92
12	Counterflow Virtual Impactor Based Collection of Small Ice Particles in Mixed-Phase Clouds for the Physico-Chemical Characterization of Tropospheric Ice Nuclei: Sampler Description and First Case Study. <i>Aerosol Science and Technology</i> , 2007, 41, 848-864.	3.1	83
13	Aerosol partitioning between the interstitial and the condensed phase in mixed-phase clouds. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	80
14	Calibration of the Cloud Particle Imager Probes Using Calibration Beads and Ice Crystal Analogs: The Depth of Field. <i>Journal of Atmospheric and Oceanic Technology</i> , 2007, 24, 1860-1879.	1.3	71
15	Aircraft observations of the influence of electric fields on the aggregation of ice crystals. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2005, 131, 1695-1712.	2.7	62
16	The accommodation coefficient of water molecules on ice “ cirrus cloud studies at the AIDA simulation chamber. <i>Atmospheric Chemistry and Physics</i> , 2013, 13, 4451-4466.	4.9	62
17	Classifying atmospheric ice crystals by spatial light scattering. <i>Optics Letters</i> , 2008, 33, 1545.	3.3	58
18	Studies of propane flame soot acting as heterogeneous ice nuclei in conjunction with single particle soot photometer measurements. <i>Atmospheric Chemistry and Physics</i> , 2011, 11, 9549-9561.	4.9	58

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19	A model intercomparison of CCN-limited tenuous clouds in the high Arctic. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 11041-11071.	4.9	54
20	A Review of Ice Particle Shapes in Cirrus formed In Situ and in Anvils. <i>Journal of Geophysical Research D: Atmospheres</i> , 2019, 124, 10049-10090.	3.3	54
21	The origins of ice crystals measured in mixed-phase clouds at the high-alpine site Jungfraujoch. <i>Atmospheric Chemistry and Physics</i> , 2015, 15, 12953-12969.	4.9	53
22	Cloud-resolving simulations of intense tropical Hector thunderstorms: Implications for aerosol-cloud interactions. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2006, 132, 3079-3106.	2.7	51
23	Aerosol and trace gas measurements in the Darwin area during the wet season. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	49
24	Anatomy of cirrus clouds: Results from the Emerald airborne campaigns. <i>Geophysical Research Letters</i> , 2004, 31, .	4.0	47
25	The influence of small aerosol particles on the properties of water and ice clouds. <i>Faraday Discussions</i> , 2008, 137, 205-222.	3.2	43
26	An overview of the microphysical structure of cirrus clouds observed during EMERALD-1. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2005, 131, 1143-1169.	2.7	41
27	Microphysical properties of cold frontal rainbands. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2014, 140, 1257-1268.	2.7	41
28	Investigating the discrepancy between wet-suspension- and dry-dispersion-derived ice nucleation efficiency of mineral particles. <i>Atmospheric Chemistry and Physics</i> , 2015, 15, 11311-11326.	4.9	40
29	Testing an ensemble model of cirrus ice crystals using midlatitude in situ estimates of ice water content, volume extinction coefficient and the total solar optical depth. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2009, 110, 1579-1598.	2.3	38
30	An aerosol chamber investigation of the heterogeneous ice nucleating potential of refractory nanoparticles. <i>Atmospheric Chemistry and Physics</i> , 2010, 10, 1227-1247.	4.9	38
31	A new temperature- and humidity-dependent surface site density approach for deposition ice nucleation. <i>Atmospheric Chemistry and Physics</i> , 2015, 15, 3703-3717.	4.9	36
32	Observations of fluorescent aerosol-cloud interactions in the free troposphere at the High-Altitude Research Station Jungfraujoch. <i>Atmospheric Chemistry and Physics</i> , 2016, 16, 2273-2284.	4.9	34
33	Observations and comparisons of cloud microphysical properties in spring and summertime Arctic stratocumulus clouds during the ACCACIA campaign. <i>Atmospheric Chemistry and Physics</i> , 2015, 15, 3719-3737.	4.9	33
34	The development of ice in a cumulus cloud over southwest England. <i>New Journal of Physics</i> , 2008, 10, 105021.	2.9	31
35	Observed microphysical changes in Arctic mixed-phase clouds when transitioning from sea ice to open ocean. <i>Atmospheric Chemistry and Physics</i> , 2016, 16, 13945-13967.	4.9	31
36	Observations and modelling of microphysical variability, aggregation and sedimentation in tropical anvil cirrus outflow regions. <i>Atmospheric Chemistry and Physics</i> , 2012, 12, 6609-6628.	4.9	29

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37	An investigation into the performance of four cloud droplet activation parameterisations. <i>Geoscientific Model Development</i> , 2014, 7, 1535-1542.	3.6	27
38	Using <i>in situ</i> estimates of ice water content, volume extinction coefficient, and the total solar optical depth obtained during the tropical ACTIVE campaign to test an ensemble model of cirrus ice crystals. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2011, 137, 199-218.	2.7	25
39	Cloud chamber laboratory investigations into scattering properties of hollow ice particles. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2015, 157, 106-118.	2.3	25
40	Aerosol and thermodynamic effects on tropical cloud systems during TWIPICE and ACTIVE. <i>Atmospheric Chemistry and Physics</i> , 2009, 9, 15-24.	4.9	22
41	Comparing model and measured ice crystal concentrations in orographic clouds during the INUPIAQ campaign. <i>Atmospheric Chemistry and Physics</i> , 2016, 16, 4945-4966.	4.9	21
42	Microphysical sensitivity of coupled springtime Arctic stratocumulus to modelled primary ice over the ice pack, marginal ice, and ocean. <i>Atmospheric Chemistry and Physics</i> , 2017, 17, 4209-4227.	4.9	21
43	Aerosol influences on low-level clouds in the West African monsoon. <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 8503-8522.	4.9	19
44	The effect of observed vertical structure, habits, and size distributions on the solar radiative properties and cloud evolution of cirrus clouds. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2012, 138, 1221-1232.	2.7	17
45	Gravity-wave-induced perturbations in marine stratocumulus. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2013, 139, 32-45.	2.7	17
46	Lidar atmospheric measurements on Mars and Earth. <i>Planetary and Space Science</i> , 2011, 59, 942-951.	1.7	16
47	Maxwell's Stefan diffusion: a framework for predicting condensed phase diffusion and phase separation in atmospheric aerosol. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 1629-1642.	4.9	16
48	Relating large-scale subsidence to convection development in Arctic mixed-phase marine stratocumulus. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 1475-1494.	4.9	15
49	Factors determining the most efficient spray distribution for marine cloud brightening. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2014, 372, 20140056.	3.4	14
50	Modelling the effect of condensed-phase diffusion on the homogeneous nucleation of ice in ultra-viscous particles. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 683-698.	4.9	14
51	Evaluating the effects of microphysical complexity in idealised simulations of trade wind cumulus using the Factorial Method. <i>Atmospheric Chemistry and Physics</i> , 2011, 11, 2729-2746.	4.9	13
52	Can aerosols influence deep tropical convection? Aerosol indirect effects in the <i>Hector</i> island thunderstorm. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2013, 139, 2190-2208.	2.7	13
53	PyBox: An automated box-model generator for atmospheric chemistry and aerosol simulations. <i>Journal of Open Source Software</i> , 2018, 3, 755.	4.6	13
54	The breakup of levitating water drops observed with a high speed camera. <i>Atmospheric Chemistry and Physics</i> , 2011, 11, 10205-10218.	4.9	12

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55	A global view of atmospheric ice particle complexity. <i>Geophysical Research Letters</i> , 2016, 43, 11,913.	4.0	10
56	Factors influencing ice formation and growth in simulations of a mixed-phase wave cloud. <i>Journal of Advances in Modeling Earth Systems</i> , 2012, 4, .	3.8	9
57	Modelling the influence of rimer surface temperature on the glaciation of intense thunderstorms: The rime-splinter mechanism of ice multiplication. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2006, 132, 3059-3077.	2.7	8
58	Exact and near backscattering measurements of the linear depolarisation ratio of various ice crystal habits generated in a laboratory cloud chamber. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2016, 178, 361-378.	2.3	8
59	The Fall Speed Variability of Similarly Sized Ice Particle Aggregates. <i>Journal of Applied Meteorology and Climatology</i> , 2019, 58, 1751-1761.	1.5	8
60	Numerical simulation of tropical island thunderstorms (Hectors) during the ACTIVE campaign. <i>Meteorological Applications</i> , 2013, 20, 357-370.	2.1	7
61	Correction to "Aerosol and trace-gas measurements in the Darwin area during the wet season". <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	5
62	The efficiency of secondary organic aerosol particles acting as ice-nucleating particles under mixed-phase cloud conditions. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 9393-9409.	4.9	5
63	A parameterisation for the co-condensation of semi-volatile organics into multiple aerosol particle modes. <i>Geoscientific Model Development</i> , 2018, 11, 3261-3278.	3.6	5
64	Intercomparison study and optical asphericity measurements of small ice particles in the CERN CLOUD experiment. <i>Atmospheric Measurement Techniques</i> , 2017, 10, 3231-3248.	3.1	4
65	Competition for water vapour results in suppression of ice formation in mixed-phase clouds. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 7237-7250.	4.9	4
66	Using laboratory and field measurements to constrain a single habit shortwave optical parameterization for cirrus. <i>Atmospheric Research</i> , 2016, 180, 226-240.	4.1	3
67	Uncertainty in aerosol hygroscopicity resulting from semi-volatile organic compounds. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 275-287.	4.9	3
68	Corrigendum to: "Studies of heterogeneous freezing by three different desert dust samples", <i>Atmos. Chem. Phys.</i> , 9, 2805-2824, 2009. <i>Atmospheric Chemistry and Physics</i> , 2013, 13, 10079-10080.	4.9	1
69	Microphysical properties of tropical anvil cirrus observed during ACTIVE: a statistical analysis. <i>Proceedings of SPIE</i> , 2008, , .	0.8	0
70	Equilibrium absorptive partitioning theory between multiple aerosol particle modes. <i>Geoscientific Model Development</i> , 2016, 9, 3617-3637.	3.6	0