Paul Field

List of Publications by Year
in descending order

125 papers	9,269 citations	44069 48 h-index	45317 90 g-index
142 all docs	142 docs citations	142 times ranked	6811 citing authors

#	Article	IF	Citations
1	Multi-thermals and high concentrations of secondary ice: a modelling study of convective clouds during the Ice in Clouds Experiment â€“ Dust (ICE-D) campaign. Atmospheric Chemistry and Physics, 2022, 22, 1649-1667.	4.9	1
2	A strong statistical link between aerosol indirect effects and the self-similarity of rainfall distributions. Atmospheric Chemistry and Physics, 2022, 22, 3391-3407.	4.9	0
3	Extratropical Shortwave Cloud Feedbacks in the Context of the Global Circulation and Hydrological Cycle. Geophysical Research Letters, 2022, 49, .	4.0	8
4	The COMBLE Campaign: A Study of Marine Boundary Layer Clouds in Arctic Cold-Air Outbreaks. Bulletin of the American Meteorological Society, 2022, 103, E1371-E1389.	3.3	17
5	The CLoudâ€“Aerosolâ€“Radiation Interaction and Forcing: YearÂ2017 (CLARIFY-2017) measurement campaign. Atmospheric Chemistry and Physics, 2021, 21, 1049-1084.	4.9	57
6	Sensitivity of mixed-phase moderately deep convective clouds to parameterizations of ice formation â€“ an ensemble perspective. Atmospheric Chemistry and Physics, 2021, 21, 3627-3642.	4.9	2
7	The temperature dependence of ice-nucleating particle concentrations affects the radiative properties of tropical convective cloud systems. Atmospheric Chemistry and Physics, 2021, 21, 5439-5461.	4.9	26
8	Contrasting Responses of Idealised and Realistic Simulations of Shallow Cumuli to Aerosol Perturbations. Geophysical Research Letters, 2021, 48, e2021GL094137.	4.0	2
9	Opinion: Cloud-phase climate feedback and the importance of ice-nucleating particles. Atmospheric Chemistry and Physics, 2021, 21, 665-679.	4.9	78
10	Model emulation to understand the joint effects of ice-nucleating particles and secondary ice production on deep convective anvil cirrus. Atmospheric Chemistry and Physics, 2021, 21, 17315-17343.	4.9	4
11	African Lightning and its Relation to Rainfall and Climate Change in a Convectionâ€Permitting Model. Geophysical Research Letters, 2020, 47, e2020GL088163.	4.0	18
12	The hemispheric contrast in cloud microphysical properties constrains aerosol forcing. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 18998-19006.	7.1	51
13	Small ice particles at slightly supercooled temperatures in tropical maritime convection. Atmospheric Chemistry and Physics, 2020, 20, 3895-3904.	4.9	14
14	The effects of cloudâ€“aerosol interaction complexity on simulations of presummer rainfall over southern China. Atmospheric Chemistry and Physics, 2020, 20, 5093-5110.	4.9	14
15	Contributions of the Liquid and Ice Phases to Global Surface Precipitation: Observations and Global Climate Modeling. Journals of the Atmospheric Sciences, 2020, 77, 2629-2648.	1.7	34
16	A Regime-Oriented Approach to Observationally Constraining Extratropical Shortwave Cloud Feedbacks. Journal of Climate, 2020, 33, 9967-9983.	3.2	12
17	Development of aerosol activation in the double-moment Unified Model and evaluation with CLARIFY measurements. Atmospheric Chemistry and Physics, 2020, 20, 10997-11024.	4.9	7
18	Untangling causality in midlatitude aerosolâ€“cloud adjustments. Atmospheric Chemistry and Physics, 2020, 20, 4085-4103.	4.9	25

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19	Improving the Southern Ocean cloud albedo biases in a general circulation model. Atmospheric Chemistry and Physics, 2020, 20, 7741-7751.	4.9	10
20	Vertical redistribution of moisture and aerosol in orographic mixed-phase clouds. Atmospheric Chemistry and Physics, 2020, 20, 7979-8001.	4.9	0
21	Verification of a seederâ€“feeder orographic precipitation enhancement scheme accounting for lowâ€level blocking. Quarterly Journal of the Royal Meteorological Society, 2019, 145, 2909-2932.	2.7	2
22	Prediction of heavy precipitation in the eastern China flooding events of 2016: Added value of convectionâ€permitting simulations. Quarterly Journal of the Royal Meteorological Society, 2019, 145, 3300-3319.	2.7	28
23	Normalized Hail Particle Size Distributions from the T-28 Storm-Penetrating Aircraft. Journal of Applied Meteorology and Climatology, 2019, 58, 231-245.	1.5	12
24	Cloud feedbacks in extratropical cyclones: insight from long-term satellite data and high-resolution global simulations. Atmospheric Chemistry and Physics, 2019, 19, 1147-1172.	4.9	12
25	Strong Dependence of Atmospheric Feedbacks on Mixedâ€Phase Microphysics and Aerosolâ€Cloud Interactions in HadGEM3. Journal of Advances in Modeling Earth Systems, 2019, 11, 1735-1758.	3.8	85
26	Turbulent Transport in the Gray Zone: A Large Eddy Model Intercomparison Study of the CONSTRAIN Cold Air Outbreak Case. Journal of Advances in Modeling Earth Systems, 2019, 11, 597-623.	3.8	16
27	Clusterâ€Based Evaluation of Model Compensating Errors: A Case Study of Cloud Radiative Effect in the Southern Ocean. Geophysical Research Letters, 2019, 46, 3446-3453.	4.0	15
28	Effects of aerosol in simulations of realistic shallow cumulus cloud fields in a large domain. Atmospheric Chemistry and Physics, 2019, 19, 13507-13517.	4.9	11
29	Strong control of Southern Ocean cloud reflectivity by ice-nucleating particles. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 2687-2692.	7.1	156
30	Predicting decadal trends in cloud droplet number concentration using reanalysis and satellite data. Atmospheric Chemistry and Physics, 2018, 18, 2035-2047.	4.9	44
31	Aerosolâ€“cloud interactions in mixed-phase convective clouds â€“ Part 1: Aerosol perturbations. Atmospheric Chemistry and Physics, 2018, 18, 3119-3145.	4.9	48
32	Atmospheric Iceâ€Nucleating Particles in the Dusty Tropical Atlantic. Journal of Geophysical Research D: Atmospheres, 2018, 123, 2175-2193.	3.3	66
33	Aerosolâ€“cloud interactions in mixed-phase convective clouds â€“ Part 2: Meteorological ensemble. Atmospheric Chemistry and Physics, 2018, 18, 10593-10613.	4.9	13
34	Large simulated radiative effects of smoke in the south-east Atlantic. Atmospheric Chemistry and Physics, 2018, 18, 15261-15289.	4.9	61
35	Critical Southern Ocean climate model biases traced to atmospheric model cloud errors. Nature Communications, 2018, 9, 3625.	12.8	109
36	Cloud Microphysical Factors Affecting Simulations of Deep Convection During the Presummer Rainy Season in Southern China. Journal of Geophysical Research D: Atmospheres, 2018, 123, 10,477.	3.3	21

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37	A model intercomparison of CCN-limited tenuous clouds in the high Arctic. Atmospheric Chemistry and Physics, 2018, 18, 11041-11071.	4.9	54
38	Aerosol midlatitude cyclone indirect effects in observations and high-resolution simulations. Atmospheric Chemistry and Physics, 2018, 18, 5821-5846.	4.9	28
39	Simulated Lightning in a Convection Permitting Global Model. Journal of Geophysical Research D: Atmospheres, 2018, 123, 9370-9377.	3.3	10
40	The â€œ<scp>G</scp>rey <scp>Z</scp>oneâ€•cold air outbreak global model intercomparison: A cross evaluation using largeâ€eddy simulations. Journal of Advances in Modeling Earth Systems, 2017, 9, 39-64.	3.8	29
41	The Role of Ice Microphysics Parametrizations in Determining the Prevalence of Supercooled Liquid Water in High-Resolution Simulations of a Southern Ocean Midlatitude Cyclone. Journals of the Atmospheric Sciences, 2017, 74, 2001-2021.	1.7	27
42	Dependence of the Ice Water Content and Snowfall Rate on Temperature, Globally: Comparison of in Situ Observations, Satellite Active Remote Sensing Retrievals, and Global Climate Model Simulations. Journal of Applied Meteorology and Climatology, 2017, 56, 189-215.	1.5	25
43	Exploring the convective grey zone with regional simulations of a cold air outbreak. Quarterly Journal of the Royal Meteorological Society, 2017, 143, 2537-2555.	2.7	49
44	Processing of Ice Cloud In Situ Data Collected by Bulk Water, Scattering, and Imaging Probes: Fundamentals, Uncertainties, and Efforts toward Consistency. Meteorological Monographs, 2017, 58, 11.1-11.33.	5.0	56
45	Ice-Phase Precipitation. Meteorological Monographs, 2017, 58, 6.1-6.36.	5.0	34
46	Mixed-Phase Clouds: Progress and Challenges. Meteorological Monographs, 2017, 58, 5.1-5.50.	5.0	165
47	Spatial and temporal CCN variations in convection-permitting aerosol microphysics simulations in an idealised marine tropical domain. Atmospheric Chemistry and Physics, 2017, 17, 3371-3384.	4.9	8
48	The relative importance of macrophysical and cloud albedo changes for aerosol-induced radiative effects in closed-cell stratocumulus: insight from the modelling of a case study. Atmospheric Chemistry and Physics, 2017, 17, 5155-5183.	4.9	51
49	How Biased Is Aircraft Cloud Sampling?. Journal of Atmospheric and Oceanic Technology, 2016, 33, 185-189.	1.3	5
50	Large Contribution of Supercooled Liquid Clouds to the Solar Radiation Budget of the Southern Ocean. Journal of Climate, 2016, 29, 4213-4228.	3.2	136
51	The Impact of Two Coupled Cirrus Microphysicsâ€“Radiation Parameterizations on the Temperature and Specific Humidity Biases in the Tropical Tropopause Layer in a Climate Model. Journal of Climate, 2016, 29, 5299-5316.	3.2	26
52	A parametrization of subgrid orographic rain enhancement via the seederâ€“feeder effect. Quarterly Journal of the Royal Meteorological Society, 2016, 142, 132-142.	2.7	4
53	Comparing model and measured ice crystal concentrations in orographic clouds during the INUPIAQ campaign. Atmospheric Chemistry and Physics, 2016, 16, 4945-4966.	4.9	21
54	A Physically Based Subgrid Parameterization for the Production and Maintenance of Mixed-Phase Clouds in a General Circulation Model. Journals of the Atmospheric Sciences, 2016, 73, 279-291.	1.7	44

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55	Spatial and Temporal Variations in Aerosol Properties in High-Resolution Convection-Permitting Simulations in an Idealized Tropical Marine Domain. Springer Proceedings in Complexity, 2016, , 61-64.	0.3	0
56	Precipitation sensitivity to autoconversion rate in a numerical weatherâ€prediction model. Quarterly Journal of the Royal Meteorological Society, 2015, 141, 2032-2044.	2.7	9
57	Importance of snow to global precipitation. Geophysical Research Letters, 2015, 42, 9512-9520.	4.0	123
58	The sensitivity of simulated high clouds to ice crystal fall speed, shape and size distribution. Quarterly Journal of the Royal Meteorological Society, 2015, 141, 1546-1559.	2.7	24
59	Processes Controlling Tropical Tropopause Temperature and Stratospheric Water Vapor in Climate Models. Journal of Climate, 2015, 28, 6516-6535.	3.2	47
60	Assessment of the performance of the inter-arrival time algorithm to identify ice shattering artifacts in cloud particle probe measurements. Atmospheric Measurement Techniques, 2015, 8, 761-777.	3.1	63
61	The possible role of local air pollution in climate change in West Africa. Nature Climate Change, 2015, 5, 815-822.	18.8	109
62	Sensitivity of orographic precipitation enhancement to horizontal resolution in the operational Met Office Weather forecasts. Meteorological Applications, 2015, 22, 14-24.	2.1	32
63	The Met Office Unified Model Global Atmosphere 4.0 and JULES Global Land 4.0 configurations. Geoscientific Model Development, 2014, 7, 361-386.	3.6	154
64	A method to represent subgridâ€scale updraft velocity in kilometerâ€scale models: Implication for aerosol activation. Journal of Geophysical Research D: Atmospheres, 2014, 119, 4149-4173.	3.3	19
65	A Coupled Cloud Physicsâ€“Radiation Parameterization of the Bulk Optical Properties of Cirrus and Its Impact on the Met Office Unified Model Global Atmosphere 5.0 Configuration. Journal of Climate, 2014, 27, 7725-7752.	3.2	52
66	Mixedâ€phase clouds in a turbulent environment. Part 1: Largeâ€eddy simulation experiments. Quarterly Journal of the Royal Meteorological Society, 2014, 140, 855-869.	2.7	31
67	Mixedâ€phase clouds in a turbulent environment. Part 2: Analytic treatment. Quarterly Journal of the Royal Meteorological Society, 2014, 140, 870-880.	2.7	26
68	Improving a convectionâ€permitting model simulation of a cold air outbreak. Quarterly Journal of the Royal Meteorological Society, 2014, 140, 124-138.	2.7	54
69	Using operational weather radar to assess highâ€resolution numerical weather prediction over the British Isles for a cold air outbreak caseâ€study. Quarterly Journal of the Royal Meteorological Society, 2014, 140, 225-239.	2.7	14
70	Investigation and prediction of helicopterâ€triggered lightning over the North Sea. Meteorological Applications, 2013, 20, 94-106.	2.1	14
71	Improved microphysical parametrization of drizzle and fog for operational forecasting using the Met Office Unified Model. Quarterly Journal of the Royal Meteorological Society, 2013, 139, 488-500.	2.7	48
72	The effective density of small ice particles obtained from in situ aircraft observations of midâ€latitude cirrus. Quarterly Journal of the Royal Meteorological Society, 2013, 139, 1923-1934.	2.7	71

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73	A new high- and low-frequency scattering parameterization for cirrus and its impact on a high-resolution numerical weather prediction model. AIP Conference Proceedings, 2013, , .	0.4	4
74	Corrigendum to: "Studies of heterogeneous freezing by three different desert dust samples", Atmos. Chem. Phys., 9, 2805â€“2824, 2009. Atmospheric Chemistry and Physics, 2013, 13, 10079-10080.	4.9	1
75	In Situ, Airborne Instrumentation: Addressing and Solving Measurement Problems in Ice Clouds. Bulletin of the American Meteorological Society, 2012, 93, ES29-ES34.	3.3	38
76	Ice in Clouds Experimentâ€“Layer Clouds. Part II: Testing Characteristics of Heterogeneous Ice Formation in Lee Wave Clouds. Journals of the Atmospheric Sciences, 2012, 69, 1066-1079.	1.7	61
77	A laboratory investigation into the aggregation efficiency of small ice crystals. Atmospheric Chemistry and Physics, 2012, 12, 2055-2076.	4.9	97
78	Factors influencing ice formation and growth in simulations of a mixedâ€phase wave cloud. Journal of Advances in Modeling Earth Systems, 2012, 4, .	3.8	9
79	The Surface Downwelling Solar Radiation Surplus over the Southern Ocean in the Met Office Model: The Role of Midlatitude Cyclone Clouds. Journal of Climate, 2012, 25, 7467-7486.	3.2	155
80	A limited area model (LAM) intercomparison study of a TWP-ICE active monsoon mesoscale convective event. Journal of Geophysical Research, 2012, 117, n/a-n/a.	3.3	27
81	The Distribution of Cloud Horizontal Sizes. Journal of Climate, 2011, 24, 4800-4816.	3.2	142
82	Evaluating the effects of microphysical complexity in idealised simulations of trade wind cumulus using the Factorial Method. Atmospheric Chemistry and Physics, 2011, 11, 2729-2746.	4.9	13
83	Using model analysis and satellite data to assess cloud and precipitation in midlatitude cyclones. Quarterly Journal of the Royal Meteorological Society, 2011, 137, 1501-1515.	2.7	34
84	Ice in Clouds Experimentâ€”Layer Clouds. Part I: Ice Growth Rates Derived from Lenticular Wave Cloud Penetrations. Journals of the Atmospheric Sciences, 2011, 68, 2628-2654.	1.7	29
85	Observation of playa salts as nuclei in orographic wave clouds. Journal of Geophysical Research, 2010, 115, .	3.3	55
86	Properties of normalised rainâ€rate distributions in the tropical Pacific. Quarterly Journal of the Royal Meteorological Society, 2009, 135, 175-186.	2.7	11
87	Studies of heterogeneous freezing by three different desert dust samples. Atmospheric Chemistry and Physics, 2009, 9, 2805-2824.	4.9	291
88	Explicit Forecasts of Winter Precipitation Using an Improved Bulk Microphysics Scheme. Part II: Implementation of a New Snow Parameterization. Monthly Weather Review, 2008, 136, 5095-5115.	1.4	2,008
89	Midlatitude Cyclone Compositing to Constrain Climate Model Behavior Using Satellite Observations. Journal of Climate, 2008, 21, 5887-5903.	3.2	44
90	Determination of the Combined Ventilation Factor and Capacitance for Ice Crystal Aggregates from Airborne Observations in a Tropical Anvil Cloud. Journals of the Atmospheric Sciences, 2008, 65, 376-391.	1.7	49

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91	The Effect of Dynamics on Mixed-Phase Clouds: Theoretical Considerations. Journals of the Atmospheric Sciences, 2008, 65, 66-86.	1.7	98
92	Exponential Size Distributions for Snow. Journals of the Atmospheric Sciences, 2008, 65, 4017-4031.	1.7	43
93	Snow Size Distribution Parameterization for Midlatitude and Tropical Ice Clouds. Journals of the Atmospheric Sciences, 2007, 64, 4346-4365.	1.7	162
94	Technical Note: A numerical test-bed for detailed ice nucleation studies in the AIDA cloud simulation chamber. Atmospheric Chemistry and Physics, 2007, 7, 243-256.	4.9	14
95	Precipitation and Cloud Structure in Midlatitude Cyclones. Journal of Climate, 2007, 20, 233-254.	3.2	204
96	Some ice nucleation characteristics of Asian and Saharan desert dust. Atmospheric Chemistry and Physics, 2006, 6, 2991-3006.	4.9	177
97	Efficiency of the deposition mode ice nucleation on mineral dust particles. Atmospheric Chemistry and Physics, 2006, 6, 3007-3021.	4.9	328
98	A Test of Ice Self-Collection Kernels Using Aircraft Data. Journals of the Atmospheric Sciences, 2006, 63, 651-666.	1.7	43
99	Shattering and Particle Interarrival Times Measured by Optical Array Probes in Ice Clouds. Journal of Atmospheric and Oceanic Technology, 2006, 23, 1357-1371.	1.3	310
100	Radar scattering by aggregate snowflakes. Quarterly Journal of the Royal Meteorological Society, 2006, 132, 897-914.	2.7	47
101	Numerical modelling of mixed-phase frontal clouds observed during the CWVC project. Quarterly Journal of the Royal Meteorological Society, 2005, 131, 1677-1693.	2.7	16
102	Parametrization of ice-particle size distributions for mid-latitude stratiform cloud. Quarterly Journal of the Royal Meteorological Society, 2005, 131, 1997-2017.	2.7	193
103	Theory of growth by differential sedimentation, with application to snowflake formation. Physical Review E, 2004, 70, 021403.	2.1	73
104	Simultaneous radar and aircraft observations of mixed-phase cloud at the 100 m scale. Quarterly Journal of the Royal Meteorological Society, 2004, 130, 1877-1904.	2.7	61
105	Universality in snowflake aggregation. Geophysical Research Letters, 2004, 31, .	4.0	74
106	A modelling study of ice-spectrum modes in deep frontal clouds. Quarterly Journal of the Royal Meteorological Society, 2003, 129, 1873-1890.	2.7	7
107	Simulations of the glaciation of a frontal mixed-phase cloud with the Explicit Microphysics Model. Quarterly Journal of the Royal Meteorological Society, 2003, 129, 1351-1371.	2.7	36
108	A test of cirrus ice crystal scattering phase functions. Geophysical Research Letters, 2003, 30, .	4.0	23

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109	Ice Particle Interarrival Times Measured with a Fast FSSP. Journal of Atmospheric and Oceanic Technology, 2003, 20, 249-261.	1.3	167
110	Aggregation and Scaling of Ice Crystal Size Distributions. Journals of the Atmospheric Sciences, 2003, 60, 544-560.	1.7	87
111	Observations and Parameterizations of Particle Size Distributions in Deep Tropical Cirrus and Stratiform Precipitating Clouds: Results from In Situ Observations in TRMM Field Campaigns. Journals of the Atmospheric Sciences, 2002, 59, 3457-3491.	1.7	277
112	Autoconversion rate bias in stratiform boundary layer cloud parameterizations. Atmospheric Research, 2002, 65, 109-128.	4.1	60
113	Properties of embedded convection in warm-frontal mixed-phase cloud from aircraft and polarimetric radar. Quarterly Journal of the Royal Meteorological Society, 2002, 128, 451-476.	2.7	115
114	Ice nucleation characteristics of an isolated wave cloud. Quarterly Journal of the Royal Meteorological Society, 2002, 128, 2417-2437.	2.7	54
115	Systematic Biases in the Microphysics and Thermodynamics of Numerical Models That Ignore Subgrid-Scale Variability. Journals of the Atmospheric Sciences, 2001, 58, 1117-1128.	1.7	83
116	Small-Scale and Mesoscale Variability of Scalars in Cloudy Boundary Layers: One-Dimensional Probability Density Functions. Journals of the Atmospheric Sciences, 2001, 58, 1978-1994.	1.7	64
117	Ice nucleation in orographic wave clouds: Measurements made during INTACC. Quarterly Journal of the Royal Meteorological Society, 2001, 127, 1493-1512.	2.7	58
118	Discrimination of micrometre-sized ice and super-cooled droplets in mixed-phase cloud. Atmospheric Environment, 2001, 35, 33-47.	4.1	74
119	Relationships between Total Water, Condensed Water, and Cloud Fraction in Stratiform Clouds Examined Using Aircraft Data. Journals of the Atmospheric Sciences, 2000, 57, 1888-1905.	1.7	88
120	Bimodal ice spectra in frontal clouds. Quarterly Journal of the Royal Meteorological Society, 2000, 126, 379-392.	2.7	28
121	Aircraft Observations of Ice Crystal Evolution in an Altostratus Cloud. Journals of the Atmospheric Sciences, 1999, 56, 1925-1941.	1.7	50
122	Modelling composition changes in F-layer storms. Journal of Atmospheric and Solar-Terrestrial Physics, 1998, 60, 523-543.	1.6	76
123	The response of the ionospheric F2-layer to geomagnetic activity: an analysis of worldwide data. Journal of Atmospheric and Solar-Terrestrial Physics, 1997, 59, 163-180.	1.6	90
124	Latitude and solar-cycle patterns in the response of the ionosphere F2-layer to geomagnetic activity. Advances in Space Research, 1997, 20, 1689-1692.	2.6	18
125	Chapter 7. Secondary Ice Production - current state of the science and recommendations for the future. Meteorological Monographs, 0, , .	5.0	116