Ann Fridlind

List of Publications by Year
in descending order

89	4,180	126708 33	128067 60
papers	citations	h-index	g-index

123	123	123	3793
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Short-lived pollutants in the Arctic: their climate impact and possible mitigation strategies. Atmospheric Chemistry and Physics, 2008, 8, 1723-1735.	1.9	346
2	Intercomparison of model simulations of mixedâ€phase clouds observed during the ARM Mixedâ€Phase Arctic Cloud Experiment. I: singleâ€layer cloud. Quarterly Journal of the Royal Meteorological Society, 2009, 135, 979-1002.	1.0	224
3	Ice properties of singleâ€layer stratocumulus during the Mixedâ€Phase Arctic Cloud Experiment: 1. Observations. Journal of Geophysical Research, 2007, 112, .	3.3	204
4	Remote Sensing of Droplet Number Concentration in Warm Clouds: A Review of the Current State of Knowledge and Perspectives. Reviews of Geophysics, 2018, 56, 409-453.	9.0	185
5	Ice properties of singleâ€layer stratocumulus during the Mixedâ€Phase Arctic Cloud Experiment: 2. Model results. Journal of Geophysical Research, 2007, 112, .	3.3	165
6	Confronting the Challenge of Modeling Cloud and Precipitation Microphysics. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS001689.	1.3	154
7	A study of gas-aerosol equilibrium and aerosol pH in the remote marine boundary layer during the First Aerosol Characterization Experiment (ACE 1). Journal of Geophysical Research, 2000, 105, 17325-17340.	3.3	126
8	Intercomparison of largeâ€eddy simulations of Arctic mixedâ€phase clouds: Importance of ice size distribution assumptions. Journal of Advances in Modeling Earth Systems, 2014, 6, 223-248.	1.3	114
9	Evidence for the Predominance of Mid-Tropospheric Aerosols as Subtropical Anvil Cloud Nuclei. Science, 2004, 304, 718-722.	6.0	112
10	Ice supersaturations exceeding 100% at the cold tropical tropopause: implications for cirrus formation and dehydration. Atmospheric Chemistry and Physics, 2005, 5, 851-862.	1.9	112
11	A comparison of TWPâ€ICE observational data with cloudâ€resolving model results. Journal of Geophysical Research, 2012, 117, .	3.3	108
12	Homogeneous Ice Nucleation in Subtropical and Tropical Convection and Its Influence on Cirrus Anvil Microphysics. Journals of the Atmospheric Sciences, 2005, 62, 41-64.	0.6	103
13	Evaluation of cloudâ€resolving and limited area model intercomparison simulations using TWPâ€ICE observations: 1. Deep convective updraft properties. Journal of Geophysical Research D: Atmospheres, 2014, 119, 13,891.	1.2	100
14	Highâ€resolution NUâ€WRF simulations of a deep convectiveâ€precipitation system during MC3E: Further improvements and comparisons between Goddard microphysics schemes and observations. Journal of Geophysical Research D: Atmospheres, 2016, 121, 1278-1305.	1.2	97
15	An overview of the ORACLES (ObseRvations of Aerosols above CLouds and their intEractionS) project: aerosolâ€“cloudâ€“radiation interactions in the southeast Atlantic basin. Atmospheric Chemistry and Physics, 2021, 21, 1507-1563.	1.9	97
16	Cloud-scale model intercomparison of chemical constituent transport in deep convection. Atmospheric Chemistry and Physics, 2007, 7, 4709-4731.	1.9	96
17	Evaluation of cloud-resolving model intercomparison simulations using TWP-ICE observations: Precipitation and cloud structure. Journal of Geophysical Research, 2011, 116, .	3.3	90
18	Intercomparison of cloud model simulations of Arctic mixed-phase boundary layer clouds observed during SHEBA/FIRE-ACE. Journal of Advances in Modeling Earth Systems, 2011, 3, n/a-n/a.	1.3	90

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19	A FIRE-ACE/SHEBA Case Study of Mixed-Phase Arctic Boundary Layer Clouds: Entrainment Rate Limitations on Rapid Primary Ice Nucleation Processes. Journals of the Atmospheric Sciences, 2012, 69, 365-389.	0.6	77
20	A new look at the environmental conditions favorable to secondary ice production. Atmospheric Chemistry and Physics, 2020, 20, 1391-1429.	1.9	69
21	Toward ice formation closure in Arctic mixed-phase boundary layer clouds during ISDAC. Journal of Geophysical Research, 2011, 116, .	3.3	65
22	Remote sensing of ice crystal asymmetry parameter using multi-directional polarization measurements â€“ Part 1: Methodology and evaluation with simulated measurements. Atmospheric Measurement Techniques, 2012, 5, 2361-2374.	1.2	65
23	Control of deep convection by sub-cloud lifting processes: the ALP closure in the LMDZ5B general circulation model. Climate Dynamics, 2013, 40, 2271-2292.	1.7	59
24	Remote sensing of ice crystal asymmetry parameter using multi-directional polarization measurements â€“ Part 2: Application to the Research Scanning Polarimeter. Atmospheric Chemistry and Physics, 2013, 13, 3185-3203.	1.9	53
25	Constraining the Twomey effect from satellite observations: issues and perspectives. Atmospheric Chemistry and Physics, 2020, 20, 15079-15099.	1.9	49
26	Evaluation of cloudâ€resolving and limited area model intercomparison simulations using TWPâ€ICE observations: 2. Precipitation microphysics. Journal of Geophysical Research D: Atmospheres, 2014, 119, 13,919.	1.2	47
27	AWARE: The Atmospheric Radiation Measurement (ARM) West Antarctic Radiation Experiment. Bulletin of the American Meteorological Society, 2020, 101, E1069-E1091.	1.7	46
28	On the role of iceâ€nucleating aerosol in the formation of ice particles in tropical mesoscale convective systems. Geophysical Research Letters, 2017, 44, 1574-1582.	1.5	45
29	A Flexible Parameterization for Shortwave Optical Properties of Ice Crystals*. Journals of the Atmospheric Sciences, 2014, 71, 1763-1782.	0.6	42
30	Variation of ice crystal size, shape, and asymmetry parameter in tops of tropical deep convective clouds. Journal of Geophysical Research D: Atmospheres, 2014, 119, 11,809-11,825.	1.2	40
31	Evaluation of Hydrometeor Phase and Ice Properties in Cloud-Resolving Model Simulations of Tropical Deep Convection Using Radiance and Polarization Measurements. Journals of the Atmospheric Sciences, 2012, 69, 3290-3314.	0.6	39
32	On Polarimetric Radar Signatures of Deep Convection for Model Evaluation: Columns of Specific Differential Phase Observed during MC3E*. Monthly Weather Review, 2016, 144, 737-758.	0.5	38
33	RACORO continental boundary layer cloud investigations: 2. Largeâ€eddy simulations of cumulus clouds and evaluation with in situ and groundâ€based observations. Journal of Geophysical Research D: Atmospheres, 2015, 120, 5993-6014.	1.2	35
34	Millimeter wave scattering from ice crystals and their aggregates: Comparing cloud model simulations with X- and Ka-band radar measurements. Journal of Geophysical Research, 2011, 116, .	3.3	34
35	Evaluating models' response of tropical low clouds to SST forcings using CALIPSO observations. Atmospheric Chemistry and Physics, 2019, 19, 2813-2832.	1.9	34
36	Derivation of aerosol profiles for MC3E convection studies and use in simulations of the 20ÂMay squall line case. Atmospheric Chemistry and Physics, 2017, 17, 5947-5972.	1.9	33

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37	Impacts of Varying Concentrations of Cloud Condensation Nuclei on Deep Convective Cloud Updraftsâ€"A Multimodel Assessment. Journals of the Atmospheric Sciences, 2021, 78, 1147-1172.	0.6	33
38	High ice water content at low radar reflectivity near deep convection â€“ Part 2: Evaluation of microphysical pathways in updraft parcel simulations. Atmospheric Chemistry and Physics, 2015, 15, 11729-11751.	1.9	32
39	Impacts of solar-absorbing aerosol layers on the transition of stratocumulus to trade cumulus clouds. Atmospheric Chemistry and Physics, 2017, 17, 12725-12742.	1.9	30
40	Cloud Influence on ERA5 and AMPS Surface Downwelling Longwave Radiation Biases in West Antarctica. Journal of Climate, 2019, 32, 7935-7949.	1.2	30
41	Point and column aerosol radiative closure during ACE 1: Effects of particle shape and size. Journal of Geophysical Research, 2003, 108, n/a-n/a.	3.3	29
42	The dependence of cirrus gamma size distributions expressed as volumes in N₀â€Î»â€¼ phase space and bulk cloud properties on environmental conditions: Results from the Small Ice Particles in Cirrus Experiment (SPARTICUS). Journal of Geophysical Research D: Atmospheres, 2015, 120, 10,351.	1.2	28
43	Vertical variation of ice particle size in convective cloud tops. Geophysical Research Letters, 2016, 43, 4586-4593.	1.5	28
44	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
45	Analysis of cloudâ€resolving simulations of a tropical mesoscale convective system observed during TWPâ€ICE: Vertical fluxes and draft properties in convective and stratiform regions. Journal of Geophysical Research, 2012, 117, .	3.3	26
46	High ice water content at low radar reflectivity near deep convection â€“ Part 1: Consistency of in situ and remote-sensing observations with stratiform rain column simulations. Atmospheric Chemistry and Physics, 2015, 15, 11713-11728.	1.9	25
47	RACORO continental boundary layer cloud investigations: 1. Case study development and ensemble largeâ€scale forcings. Journal of Geophysical Research D: Atmospheres, 2015, 120, 5962-5992.	1.2	20
48	Use of Cloud Radar Doppler Spectra to Evaluate Stratocumulus Drizzle Size Distributions in Large-Eddy Simulations with Size-Resolved Microphysics. Journal of Applied Meteorology and Climatology, 2017, 56, 3263-3283.	0.6	20
49	The prevalence of precipitation from polar supercooled clouds. Atmospheric Chemistry and Physics, 2021, 21, 3949-3971.	1.9	20
50	Aerosolâ€"Ice Formation Closure: A Southern Great Plains Field Campaign. Bulletin of the American Meteorological Society, 2021, 102, E1952-E1971.	1.7	20
51	Simulations of cloudâ€radiation interaction using largeâ€scale forcing derived from the CINDY/DYNAMO northern sounding array. Journal of Advances in Modeling Earth Systems, 2015, 7, 1472-1498.	1.3	19
52	Use of polarimetric radar measurements to constrain simulated convective cell evolution: a pilot study with Lagrangian tracking. Atmospheric Measurement Techniques, 2019, 12, 2979-3000.	1.2	19
53	Persistent Supercooled Drizzle at Temperatures Below â^'25ÂÂ°C Observed at McMurdo Station, Antarctica. Journal of Geophysical Research D: Atmospheres, 2019, 124, 10878-10895.	1.2	19
54	Preconditioning of overcast-to-broken cloud transitions by riming in marine cold air outbreaks. Atmospheric Chemistry and Physics, 2021, 21, 12049-12067.	1.9	19

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55	Evaluation of intercomparisons of four different types of model simulating <scp>TWPâ€ICE</scp>. Quarterly Journal of the Royal Meteorological Society, 2014, 140, 826-837.	1.0	18
56	RACORO continental boundary layer cloud investigations: 3. Separation of parameterization biases singleâ€column model CAM5 simulations of shallow cumulus. Journal of Geophysical Research D: Atmospheres, 2015, 120, 6015-6033.	1.2	18
57	Simulations of Arctic Mixed-Phase Boundary Layer Clouds: Advances in Understanding and Outstanding Questions. , 2018, , 153-183.		16
58	Global Statistics of Ice Microphysical and Optical Properties at Tops of Optically Thick Ice Clouds. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2019JD031811.	1.2	16
59	Analysis of gas-aerosol partitioning in the Arctic: Comparison of size-resolved equilibrium model results with field data. Journal of Geophysical Research, 2000, 105, 19891-19903.	3.3	15
60	An evaluation of ice formation in largeâ€eddy simulations of supercooled Arctic stratocumulus using groundâ€based lidar and cloud radar. Journal of Geophysical Research, 2009, 114, .	3.3	15
61	Simulation of Mesoscale Cellular Convection in Marine Stratocumulus. Part I: Drizzling Conditions. Journals of the Atmospheric Sciences, 2018, 75, 257-274.	0.6	15
62	Derivation of physical and optical properties of mid-latitude cirrus ice crystals for a size-resolved cloud microphysics model. Atmospheric Chemistry and Physics, 2016, 16, 7251-7283.	1.9	14
63	Nonturbulent Liquidâ€Bearing Polar Clouds: Observed Frequency of Occurrence and Simulated Sensitivity to Gravity Waves. Geophysical Research Letters, 2020, 47, e2020GL087099.	1.5	14
64	Planning the Next Decade of Coordinated Research to Better Understand and Simulate Marine Low Clouds. Bulletin of the American Meteorological Society, 2016, 97, 1699-1702.	1.7	13
65	Properties of a Mesoscale Convective System in the Context of an Isentropic Analysis. Journals of the Atmospheric Sciences, 2015, 72, 1945-1962.	0.6	12
66	(GO)²-SIM: a GCM-oriented ground-observation forward-simulator framework for objective evaluation of cloud and precipitation phase. Geoscientific Model Development, 2018, 11, 4195-4214.	1.3	12
67	A Second-Order Closure Turbulence Model: New Heat Flux Equations and No Critical Richardson Number. Journals of the Atmospheric Sciences, 2020, 77, 2743-2759.	0.6	12
68	CO signatures in subtropical convective clouds and anvils during CRYSTAL-FACE: An analysis of convective transport and entrainment using observations and a cloud-resolving model. Journal of Geophysical Research, 2006, 111, .	3.3	11
69	Validation and determination of ice water contentâ€radar reflectivity relationships during CRYSTALâ€FACE: Flight requirements for future comparisons. Journal of Geophysical Research, 2008, 113, .	3.3	10
70	Cloud-Resolving Modeling: ARM and the GCSS Story. Meteorological Monographs, 2016, 57, 25.1-25.16.	5.0	10
71	On Averaging Aspect Ratios and Distortion Parameters over Ice Crystal Population Ensembles for Estimating Effective Scattering Asymmetry Parameters. Journals of the Atmospheric Sciences, 2016, 73, 775-787.	0.6	10
72	An Evaluation of Size-Resolved Cloud Microphysics Scheme Numerics for Use with Radar Observations. Part I: Collisionâ€“Coalescence. Journals of the Atmospheric Sciences, 2019, 76, 247-263.	0.6	10

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73	Vertical profiles of droplet size distributions derived from cloud-side observations by the research scanning polarimeter: Tests on simulated data. Atmospheric Research, 2020, 239, 104924.	1.8	10
74	Snow Reconciles Observed and Simulated Phase Partitioning and Increases Cloud Feedback. Geophysical Research Letters, 2021, 48, e2021GL094876.	1.5	10
75	Convection Parametrization and Multi-Nesting Dependence of a Heavy Rainfall Event over Namibia with Weather Research and Forecasting (WRF) Model. Climate, 2020, 8, 112.	1.2	9
76	Estimating the Sensitivity of Radiative Impacts of Shallow, Broken Marine Clouds to Boundary Layer Aerosol Size Distribution Parameter Uncertainties for Evaluation of Satellite Retrieval Requirements. Journal of Atmospheric and Oceanic Technology, 2011, 28, 530-538.	0.5	7
77	Evidence that Horizontal Moisture Advection Regulates the Ubiquitous Amplification of Rainfall Variability over Tropical Oceans. Journals of the Atmospheric Sciences, 2021, 78, 529-547.	0.6	7
78	Combining a receptor-oriented framework for tracer distributions with a cloud-resolving model to study transport in deep convective clouds: Application to the NASA CRYSTAL-FACE campaign. Geophysical Research Letters, 2004, 31, .	1.5	6
79	Influence of Humidified Aerosol on Lidar Depolarization Measurements below Ice-Precipitating Arctic Stratus. Journal of Applied Meteorology and Climatology, 2011, 50, 2184-2192.	0.6	6
80	Dilution of Boundary Layer Cloud Condensation Nucleus Concentrations by Free Tropospheric Entrainment During Marine Cold Air Outbreaks. Geophysical Research Letters, 2022, 49, .	1.5	6
81	The Earth Model Column Collaboratory (EMC²) v1.1: an open-source ground-based lidar and radar instrument simulator and subcolumn generator for large-scale models. Geoscientific Model Development, 2022, 15, 901-927.	1.3	4
82	On the Forward Modeling of Radar Doppler Spectrum Width From LES: Implications for Model Evaluation. Journal of Geophysical Research D: Atmospheres, 2018, 123, 7444-7461.	1.2	3
83	Sensitivity of Botswana Ex-Tropical Cyclone Dineo rainfall simulations to cloud microphysics scheme. AAS Open Research, 0, 3, 30.	1.5	3
84	An evaluation of size-resolved cloud microphysics scheme numerics for use with radar observations Part II: Condensation and evaporation. Journals of the Atmospheric Sciences, 2021, , .	0.6	2
85	Biological aerosol effects on clouds and precipitation. Eos, 2012, 93, 539-539.	0.1	1
86	The Second ARM Training and Science Application Event: Training the Next Generation of Atmospheric Scientists. Bulletin of the American Meteorological Society, 2019, 100, ES5-ES9.	1.7	1
87	Updraft dynamics and microphysics: on the added value of the cumulus thermal reference frame in simulations of aerosolâ€“deep convection interactions. Atmospheric Chemistry and Physics, 2022, 22, 711-724.	1.9	1
88	Correction to â€œEvaluation of cloud-resolving model intercomparison simulations using TWP-ICE observations: Precipitation and cloud structureâ€. Journal of Geophysical Research, 2012, 117, n/a-n/a.	3.3	0
89	Contemplating synergistic algorithms for the NASA ACE Mission. Proceedings of SPIE, 2013, , .	0.8	0