B Stevens

List of Publications by Year
in descending order

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239 papers	32,818 citations	5896 81 h-index	4548 171 g-index
251 all docs	251 docs citations	251 times ranked	23028 citing authors

#	Article	IF	Citations
1	Overview of the Coupled Model Intercomparison Project Phase 6 (CMIP6) experimental design and organization. Geoscientific Model Development, 2016, 9, 1937-1958.	3.6	5,303
2	Complement and microglia mediate early synapse loss in Alzheimer mouse models. Science, 2016, 352, 712-716.	12.6	2,237
3	Deep learning and process understanding for data-driven Earth system science. Nature, 2019, 566, 195-204.	27.8	2,176
4	Climate and carbon cycle changes from 1850 to 2100 in MPIâ€ESM simulations for the Coupled Model Intercomparison Project phase 5. Journal of Advances in Modeling Earth Systems, 2013, 5, 572-597.	3.8	1,280
5	Atmospheric component of the MPIâ€M Earth System Model: ECHAM6. Journal of Advances in Modeling Earth Systems, 2013, 5, 146-172.	3.8	1,044
6	Untangling aerosol effects on clouds and precipitation in a buffered system. Nature, 2009, 461, 607-613.	27.8	1,005
7	Clouds, circulation and climate sensitivity. Nature Geoscience, 2015, 8, 261-268.	12.9	647
8	Developments in the MPIâ€M Earth System Model version 1.2 (MPIâ€ESM1.2) and Its Response to Increasing CO₂. Journal of Advances in Modeling Earth Systems, 2019, 11, 998-1038.	3.8	582
9	Evaluation of Large-Eddy Simulations via Observations of Nocturnal Marine Stratocumulus. Monthly Weather Review, 2005, 133, 1443-1462.	1.4	519
10	Bounding Global Aerosol Radiative Forcing of Climate Change. Reviews of Geophysics, 2020, 58, e2019RG000660.	23.0	424
11	Rain in Shallow Cumulus Over the Ocean: The RICO Campaign. Bulletin of the American Meteorological Society, 2007, 88, 1912-1928.	3.3	363
12	Tuning the climate of a global model. Journal of Advances in Modeling Earth Systems, 2012, 4, .	3.8	334
13	What Are Climate Models Missing?. Science, 2013, 340, 1053-1054.	12.6	333
14	Structure of the Entrainment Zone Capping the Convective Atmospheric Boundary Layer. Journals of the Atmospheric Sciences, 1998, 55, 3042-3064.	1.7	305
15	The Max Planck Institute Grand Ensemble: Enabling the Exploration of Climate System Variability. Journal of Advances in Modeling Earth Systems, 2019, 11, 2050-2069.	3.8	288
16	The Atlantic Multidecadal Oscillation without a role for ocean circulation. Science, 2015, 350, 320-324.	12.6	287
17	Climate and carbon-cycle variability over the last millennium. Climate of the Past, 2010, 6, 723-737.	3.4	284
18	Energy budget constraints on climate response. Nature Geoscience, 2013, 6, 415-416.	12.9	270

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19	Large-eddy simulation of the diurnal cycle of shallow cumulus convection over land. Quarterly Journal of the Royal Meteorological Society, 2002, 128, 1075-1093.	2.7	269
20	Controls on precipitation and cloudiness in simulations of trade-wind cumulus as observed during RICO. Journal of Advances in Modeling Earth Systems, 2011, 3, n/a-n/a.	3.8	249
21	ATMOSPHERIC MOIST CONVECTION. Annual Review of Earth and Planetary Sciences, 2005, 33, 605-643.	11.0	244
22	Adjustments in the Forcing-Feedback Framework for Understanding Climate Change. Bulletin of the American Meteorological Society, 2015, 96, 217-228.	3.3	239
23	DYAMOND: the DYnamics of the Atmospheric general circulation Modeled On Non-hydrostatic Domains. Progress in Earth and Planetary Science, 2019, 6, .	3.0	239
24	Aerosol Effects on Clouds, Precipitation, and the Organization of Shallow Cumulus Convection. Journals of the Atmospheric Sciences, 2008, 65, 392-406.	1.7	238
25	POCKETS OF OPEN CELLS AND DRIZZLE IN MARINE STRATOCUMULUS. Bulletin of the American Meteorological Society, 2005, 86, 51-58.	3.3	236
26	Large-Eddy Simulations of Strongly Precipitating, Shallow, Stratocumulus-Topped Boundary Layers. Journals of the Atmospheric Sciences, 1998, 55, 3616-3638.	1.7	229
27	Origins of the Solar Radiation Biases over the Southern Ocean in CFMIP2 Models*. Journal of Climate, 2014, 27, 41-56.	3.2	227
28	Dynamics and Chemistry of Marine Stratocumulusâ€”DYCOMS-II. Bulletin of the American Meteorological Society, 2003, 84, 579-594.	3.3	209
29	Large-Eddy Simulations of a Drizzling, Stratocumulus-Topped Marine Boundary Layer. Monthly Weather Review, 2009, 137, 1083-1110.	1.4	208
30	CMIP5 Scientific Gaps and Recommendations for CMIP6. Bulletin of the American Meteorological Society, 2017, 98, 95-105.	3.3	207
31	Observations of Drizzle in Nocturnal Marine Stratocumulus. Journals of the Atmospheric Sciences, 2005, 62, 88-106.	1.7	201
32	MACâ€v1: A new global aerosol climatology for climate studies. Journal of Advances in Modeling Earth Systems, 2013, 5, 704-740.	3.8	198
33	The Cloud Feedback Model Intercomparison Project (CFMIP) contribution to CMIP6. Geoscientific Model Development, 2017, 10, 359-384.	3.6	186
34	The Radiative Forcing Model Intercomparison Project (RFMIP): experimental protocol for CMIP6. Geoscientific Model Development, 2016, 9, 3447-3460.	3.6	178
35	Rethinking the Lower Bound on Aerosol Radiative Forcing. Journal of Climate, 2015, 28, 4794-4819.	3.2	175
36	Largeâ€eddy simulations over Germany using ICON: a comprehensive evaluation. Quarterly Journal of the Royal Meteorological Society, 2017, 143, 69-100.	2.7	175

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37	Thermodynamic control of anvil cloud amount. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 8927-8932.	7.1	172
38	Missing iris effect as a possible cause of muted hydrological change and high climate sensitivity in models. Nature Geoscience, 2015, 8, 346-351.	12.9	171
39	Elements of the Microphysical Structure of Numerically Simulated Nonprecipitating Stratocumulus. Journals of the Atmospheric Sciences, 1996, 53, 980-1006.	1.7	169
40	Interpreting the cloud cover â€“ aerosol optical depth relationship found in satellite data using a general circulation model. Atmospheric Chemistry and Physics, 2010, 10, 6129-6135.	4.9	169
41	Global Cloud-Resolving Models. Current Climate Change Reports, 2019, 5, 172-184.	8.6	164
42	The Structure and Mesoscale Organization of Precipitating Stratocumulus. Journals of the Atmospheric Sciences, 2008, 65, 1587-1605.	1.7	163
43	An intercomparison of radiatively driven entrainment and turbulence in a smoke cloud, as simulated by different numerical models. Quarterly Journal of the Royal Meteorological Society, 1999, 125, 391-423.	2.7	159
44	Aquaplanets, Climate Sensitivity, and Low Clouds. Journal of Climate, 2008, 21, 4974-4991.	3.2	159
45	Marine Boundary Layer Cloud Feedbacks in a Constant Relative Humidity Atmosphere. Journals of the Atmospheric Sciences, 2012, 69, 2538-2550.	1.7	159
46	A digital twin of Earth for the green transition. Nature Climate Change, 2021, 11, 80-83.	18.8	158
47	Large-Eddy Simulations of Radiatively Driven Convection: Sensitivities to the Representation of Small Scales. Journals of the Atmospheric Sciences, 1999, 56, 3963-3984.	1.7	155
48	Entrainment in stratocumulus-topped mixed layers. Quarterly Journal of the Royal Meteorological Society, 2002, 128, 2663-2690.	2.7	152
49	Simulation of a Stratocumulus-Topped Planetary Boundary Layer: Intercomparison among Different Numerical Codes. Bulletin of the American Meteorological Society, 1996, 77, 261-278.	3.3	146
50	Climate and climate change in a radiativeâ€convective equilibrium version of ECHAM6. Journal of Advances in Modeling Earth Systems, 2013, 5, 1-14.	3.8	145
51	Evaluation of the aerosol indirect effect in marine stratocumulus clouds: Droplet number, size, liquid water path, and radiative impact. Journal of Geophysical Research, 2005, 110, .	3.3	144
52	On entrainment rates in nocturnal marine stratocumulus. Quarterly Journal of the Royal Meteorological Society, 2003, 129, 3469-3493.	2.7	143
53	CGILS: Results from the first phase of an international project to understand the physical mechanisms of low cloud feedbacks in single column models. Journal of Advances in Modeling Earth Systems, 2013, 5, 826-842.	3.8	140
54	On the Growth of Layers of Nonprecipitating Cumulus Convection. Journals of the Atmospheric Sciences, 2007, 64, 2916-2931.	1.7	139

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55	Large eddy simulation using the general circulation model <scp>ICON</scp>. Journal of Advances in Modeling Earth Systems, 2015, 7, 963-986.	3.8	136
56	The Barbados Cloud Observatory: Anchoring Investigations of Clouds and Circulation on the Edge of the ITCZ. Bulletin of the American Meteorological Society, 2016, 97, 787-801.	3.3	134
57	Observations of Entrainment in Eastern Pacific Marine Stratocumulus Using Three Conserved Scalars. Journals of the Atmospheric Sciences, 2005, 62, 3268-3285.	1.7	132
58	On the Factors Modulating the Stratocumulus to Cumulus Transitions. Journals of the Atmospheric Sciences, 2011, 68, 1865-1881.	1.7	132
59	EUREC4A: A Field Campaign to Elucidate the Couplings Between Clouds, Convection and Circulation. Surveys in Geophysics, 2017, 38, 1529-1568.	4.6	132
60	MACv2-SP: a parameterization of anthropogenic aerosol optical properties and an associated Twomey effect for use in CMIP6. Geoscientific Model Development, 2017, 10, 433-452.	3.6	130
61	Climate Model Intercomparisons: Preparing for the Next Phase. Eos, 2014, 95, 77-78.	0.1	129
62	Radiativeâ€“convective equilibrium model intercomparison project. Geoscientific Model Development, 2018, 11, 793-813.	3.6	127
63	Revealing differences in GCM representations of low clouds. Climate Dynamics, 2011, 36, 385-399.	3.8	124
64	Prospects for narrowing bounds on Earth's equilibrium climate sensitivity. Earth's Future, 2016, 4, 512-522.	6.3	123
65	ICONâ€A, the Atmosphere Component of the ICON Earth System Model: I. Model Description. Journal of Advances in Modeling Earth Systems, 2018, 10, 1613-1637.	3.8	123
66	What Controls the Mean Depth of the PBL?. Journal of Climate, 2005, 18, 3157-3172.	3.2	121
67	Simulations of marine stratocumulus using a new microphysical parameterization scheme. Atmospheric Research, 1998, 47-48, 505-528.	4.1	119
68	Eurasian winter cooling in the warming hiatus of 1998â€“2012. Geophysical Research Letters, 2015, 42, 8131-8139.	4.0	117
69	Numerical simulations of stratocumulus processing of cloud condensation nuclei through collision-coalescence. Journal of Geophysical Research, 1996, 101, 21391-21402.	3.3	115
70	Largeâ€eddy simulation of the transient and nearâ€equilibrium behavior of precipitating shallow convection. Journal of Advances in Modeling Earth Systems, 2015, 7, 1918-1937.	3.8	111
71	Factors controlling the position of the Intertropical Convergence Zone on an aquaplanet. Journal of Advances in Modeling Earth Systems, 2012, 4, .	3.8	110
72	The Environment of Precipitating Shallow Cumulus Convection. Journals of the Atmospheric Sciences, 2009, 66, 1962-1979.	1.7	109

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73	What Controls the Transition from Shallow to Deep Convection?. Journals of the Atmospheric Sciences, 2009, 66, 1793-1806.	1.7	104
74	The Relationship between Drop In-Cloud Residence Time and Drizzle Production in Numerically Simulated Stratocumulus Clouds. Journals of the Atmospheric Sciences, 1996, 53, 1108-1122.	1.7	103
75	Preconditioning Deep Convection with Cumulus Congestus. Journals of the Atmospheric Sciences, 2013, 70, 448-464.	1.7	103
76	Bulk boundary-layer concepts for simplified models of tropical dynamics. Theoretical and Computational Fluid Dynamics, 2006, 20, 279-304.	2.2	101
77	The scientific challenge of understanding and estimating climate change. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 24390-24395.	7.1	96
78	The Added Value of Large-eddy and Storm-resolving Models for Simulating Clouds and Precipitation. Journal of the Meteorological Society of Japan, 2020, 98, 395-435.	1.8	93
79	A GCSS Boundary-Layer Cloud Model Intercomparison Study Of The First Astex Lagrangian Experiment. Boundary-Layer Meteorology, 1999, 93, 341-380.	2.3	92
80	Simulated Tropical Precipitation Assessed across Three Major Phases of the Coupled Model Intercomparison Project (CMIP). Monthly Weather Review, 2020, 148, 3653-3680.	1.4	92
81	Water in the atmosphere. Physics Today, 2013, 66, 29-34.	0.3	89
82	Accumulation mode aerosol, pockets of open cells, and particle nucleation in the remote subtropical Pacific marine boundary layer. Journal of Geophysical Research, 2006, 111, .	3.3	88
83	EUREC⁴A. Earth System Science Data, 2021, 13, 4067-4119.	9.9	88
84	Clouds and Convective Selfâ€Aggregation in a Multimodel Ensemble of Radiativeâ€Convective Equilibrium Simulations. Journal of Advances in Modeling Earth Systems, 2020, 12, e2020MS002138.	3.8	86
85	Impact Mechanisms of Shallow Cumulus Convection on Tropical Climate Dynamics*. Journal of Climate, 2007, 20, 2623-2642.	3.2	85
86	On the transitions in marine boundary layer cloudiness. Atmospheric Chemistry and Physics, 2010, 10, 2377-2391.	4.9	83
87	On the Fidelity of Large-Eddy Simulation of Shallow Precipitating Cumulus Convection. Monthly Weather Review, 2011, 139, 2918-2939.	1.4	79
88	Using aquaplanets to understand the robust responses of comprehensive climate models to forcing. Climate Dynamics, 2015, 44, 1957-1977.	3.8	79
89	Understanding the Intermodel Spread in Global-Mean Hydrological Sensitivity*. Journal of Climate, 2016, 29, 801-817.	3.2	79
90	An explicit cloud microphysics/LES model designed to simulate the Twomey effect. Atmospheric Research, 1994, 33, 207-233.	4.1	78

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91	Sugar, gravel, fish and flowers: Mesoscale cloud patterns in the trade winds. Quarterly Journal of the Royal Meteorological Society, 2020, 146, 141-152.	2.7	78
92	Observing and Modeling Earthâ€™s Energy Flows. Surveys in Geophysics, 2012, 33, 779-816.	4.6	77
93	Paths to accuracy for radiation parameterizations in atmospheric models. Journal of Advances in Modeling Earth Systems, 2013, 5, 225-233.	3.8	77
94	Rediscovery of the doldrums in storm-resolving simulations over the tropical Atlantic. Nature Geoscience, 2017, 10, 891-896.	12.9	76
95	The distribution and variability of lowâ€level cloud in the North Atlantic trades. Quarterly Journal of the Royal Meteorological Society, 2014, 140, 2364-2374.	2.7	75
96	Intercomparison and Interpretation of Single-Column Model Simulations of a Nocturnal Stratocumulus-Topped Marine Boundary Layer. Monthly Weather Review, 2005, 133, 2741-2758.	1.4	74
97	Coupled radiative convective equilibrium simulations with explicit and parameterized convection. Journal of Advances in Modeling Earth Systems, 2016, 8, 1468-1482.	3.8	73
98	Observations of the Structure of Heavily Precipitating Marine Stratocumulus. Journals of the Atmospheric Sciences, 2005, 62, 4327-4342.	1.7	72
99	Parameterization of the Atmospheric Boundary Layer: A View from Just Above the Inversion. Bulletin of the American Meteorological Society, 2008, 89, 453-458.	3.3	70
100	Amplification of El NiÃ±o by cloud longwave coupling to atmospheric circulation. Nature Geoscience, 2016, 9, 106-110.	12.9	70
101	Large-Eddy Simulations of EUCLIPSEâ€“GASS Lagrangian Stratocumulus-to-Cumulus Transitions: Mean State, Turbulence, and Decoupling. Journals of the Atmospheric Sciences, 2016, 73, 2485-2508.	1.7	67
102	Cloud transitions and decoupling in shear-free stratocumulus-topped boundary layers. Geophysical Research Letters, 2000, 27, 2557-2560.	4.0	65
103	Easy Volcanic Aerosol (EVA v1.0): an idealized forcing generator for climate simulations. Geoscientific Model Development, 2016, 9, 4049-4070.	3.6	63
104	A simple equilibrium model for shallow-cumulus-topped mixed layers. Theoretical and Computational Fluid Dynamics, 2006, 20, 305-322.	2.2	62
105	The Observed Hemispheric Symmetry in Reflected Shortwave Irradiance. Journal of Climate, 2013, 26, 468-477.	3.2	62
106	The Maddenâ€“Julian Oscillation in ECHAM6 and the Introduction of an Objective MJO Metric. Journal of Climate, 2013, 26, 3241-3257.	3.2	62
107	The fine-scale structure of the trade wind cumuli over Barbados â€“ an introduction to the CARRIBA project. Atmospheric Chemistry and Physics, 2013, 13, 10061-10077.	4.9	61
108	The radiative impact of clouds on the shift of the Intertropical Convergence Zone. Geophysical Research Letters, 2014, 41, 4308-4315.	4.0	61

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109	Efficient computation of vapor and heat diffusion between hydrometeors in a numerical model. Atmospheric Research, 2000, 53, 171-183.	4.1	60
110	Monte Carlo Spectral Integration: a Consistent Approximation for Radiative Transfer in Large Eddy Simulations. Journal of Advances in Modeling Earth Systems, 2009, 1, .	3.8	59
111	Observations, Experiments, and Large Eddy Simulation. Bulletin of the American Meteorological Society, 2001, 82, 283-294.	3.3	57
112	The role of precipitation and spatial organization in the response of tradeâ€wind clouds to warming. Journal of Advances in Modeling Earth Systems, 2016, 8, 843-862.	3.8	56
113	A modeling study of the effect of drizzle on cloud optical depth and susceptibility. Journal of Geophysical Research, 1997, 102, 13527-13534.	3.3	55
114	The Atlantic ITCZ bias in CMIP5 models. Climate Dynamics, 2015, 45, 1169-1180.	3.8	55
115	Climate Statistics in Global Simulations of the Atmosphere, from 80 to 2.5 km Grid Spacing. Journal of the Meteorological Society of Japan, 2020, 98, 73-91.	1.8	55
116	Turbulence effects on warm-rain autoconversion in precipitating shallow convection. Quarterly Journal of the Royal Meteorological Society, 2010, 136, 1753-1762.	2.7	54
117	Climate feedback efficiency and synergy. Climate Dynamics, 2013, 41, 2539-2554.	3.8	54
118	The effect of atmospheric radiative heating by clouds on the <scp>M</scp>addenâ€<scp>J</scp>ulian <scp>O</scp>scillation. Journal of Advances in Modeling Earth Systems, 2015, 7, 854-864.	3.8	54
119	Imprint of the convective parameterization and seaâ€surface temperature on largeâ€scale convective selfâ€aggregation. Journal of Advances in Modeling Earth Systems, 2017, 9, 1488-1505.	3.8	54
120	The low-level circulation of the North American Monsoon as revealed by QuikSCAT. Geophysical Research Letters, 2004, 31, n/a-n/a.	4.0	53
121	Structure and Dynamical Influence of Water Vapor in the Lower Tropical Troposphere. Surveys in Geophysics, 2017, 38, 1371-1397.	4.6	53
122	Compensation of Hemispheric Albedo Asymmetries by Shifts of the ITCZ and Tropical Clouds. Journal of Climate, 2014, 27, 1029-1045.	3.2	52
123	On the Structure of the Lower Troposphere in the Summertime Stratocumulus Regime of the Northeast Pacific. Monthly Weather Review, 2007, 135, 985-1005.	1.4	50
124	The Influence of Wind Speed on Shallow Marine Cumulus Convection. Journals of the Atmospheric Sciences, 2012, 69, 168-184.	1.7	50
125	HAMP â€“ the microwave package on the High Altitude and LOng range research aircraft (HALO). Atmospheric Measurement Techniques, 2014, 7, 4539-4553.	3.1	50
126	Simulating the Role of Subtropical Stratocumulus Clouds in Driving Pacific Climate Variability. Journal of Climate, 2014, 27, 5119-5131.	3.2	50

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127	On the Seasonal and Synoptic Time-Scale Variability of the North Atlantic Trade Wind Region and Its Low-Level Clouds. Journals of the Atmospheric Sciences, 2015, 72, 1428-1446.	1.7	50
128	Measuring Area-Averaged Vertical Motions with Dropsondes. Journals of the Atmospheric Sciences, 2019, 76, 767-783.	1.7	50
129	DNS and LES for Simulating Stratocumulus: Better Together. Journal of Advances in Modeling Earth Systems, 2018, 10, 1421-1438.	3.8	49
130	Mechanisms and Model Diversity of Trade-Wind Shallow Cumulus Cloud Feedbacks: A Review. Surveys in Geophysics, 2017, 38, 1331-1353.	4.6	48
131	Assessing the scales in numerical weather and climate predictions: will exascale be the rescue?. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2019, 377, 20180148.	3.4	48
132	A New Look at the Daily Cycle of Trade Wind Cumuli. Journal of Advances in Modeling Earth Systems, 2019, 11, 3148-3166.	3.8	48
133	A High-Altitude Long-Range Aircraft Configured as a Cloud Observatory: The NARVAL Expeditions. Bulletin of the American Meteorological Society, 2019, 100, 1061-1077.	3.3	47
134	The Influence of Cloud Feedbacks on Equatorial Atlantic Variability. Journal of Climate, 2015, 28, 2725-2744.	3.2	46
135	Low-Cloud Fraction, Lower-Tropospheric Stability, and Large-Scale Divergence. Journal of Climate, 2009, 22, 4827-4844.	3.2	45
136	ICONâ€A, The Atmosphere Component of the ICON Earth System Model: II. Model Evaluation. Journal of Advances in Modeling Earth Systems, 2018, 10, 1638-1662.	3.8	44
137	Estimating Bulk Entrainment With Unaggregated and Aggregated Convection. Geophysical Research Letters, 2018, 45, 455-462.	4.0	41
138	Principal Component Analysis of the Summertime Winds over the Gulf of California: A Gulf Surge Index. Monthly Weather Review, 2006, 134, 3395-3414.	1.4	40
139	The influence of internal variability on Earth's energy balance framework and implications for estimating climate sensitivity. Atmospheric Chemistry and Physics, 2018, 18, 5147-5155.	4.9	40
140	Response to Comment on â€œThe Atlantic Multidecadal Oscillation without a role for ocean circulationâ€. Science, 2016, 352, 1527-1527.	12.6	40
141	Buoyancy reversal in cloudâ€top mixing layers. Quarterly Journal of the Royal Meteorological Society, 2009, 135, 963-978.	2.7	39
142	Evaluation of large-eddy simulations forced with mesoscale model output for a multi-week period during a measurement campaign. Atmospheric Chemistry and Physics, 2017, 17, 7083-7109.	4.9	39
143	Where is the Interface of the Stratocumulus-Topped PBL?. Journals of the Atmospheric Sciences, 2005, 62, 2626-2631.	1.7	38
144	On the diurnal cycle and susceptibility to aerosol concentration in a stratocumulus-topped mixed layer. Quarterly Journal of the Royal Meteorological Society, 2005, 131, 1567-1583.	2.7	36

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145	Microphysical Scaling Relations in a Kinematic Model of Isolated Shallow Cumulus Clouds. Journals of the Atmospheric Sciences, 2010, 67, 1575-1590.	1.7	36
146	Effects of Resolution on the Simulation of Boundaryâ€layer Clouds and the Partition of Kinetic Energy to Subgrid Scales. Journal of Advances in Modeling Earth Systems, 2010, 2, .	3.8	36
147	On the connection between tropical circulation, convective mixing, and climate sensitivity. Quarterly Journal of the Royal Meteorological Society, 2015, 141, 1404-1416.	2.7	36
148	On the sensitivity of anthropogenic aerosol forcing to modelâ€internal variability and parameterizing a <scp>T</scp>womey effect. Journal of Advances in Modeling Earth Systems, 2017, 9, 1325-1341.	3.8	35
149	The role of the permanent wilting point in controlling the spatial distribution of precipitation. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 5692-5697.	7.1	35
150	A critique of one- and two-dimensional models of boundary layer clouds with a binned representations of drop microphysics. Atmospheric Research, 1998, 47-48, 529-553.	4.1	34
151	Fast and slow shifts of the zonalâ€mean intertropical convergence zone in response to an idealized anthropogenic aerosol. Journal of Advances in Modeling Earth Systems, 2017, 9, 870-892.	3.8	33
152	Lowâ€latitude boundary layer clouds as seen by CALIPSO. Journal of Geophysical Research, 2010, 115, .	3.3	31
153	Wind Shear and Buoyancy Reversal at the Top of Stratocumulus. Journals of the Atmospheric Sciences, 2014, 71, 1040-1057.	1.7	31
154	Using the Sensitivity of Large-Eddy Simulations to Evaluate Atmospheric Boundary Layer Models. Journals of the Atmospheric Sciences, 2012, 69, 1582-1601.	1.7	30
155	Two-fluid formulation of the cloud-top mixing layer for direct numerical simulation. Theoretical and Computational Fluid Dynamics, 2010, 24, 511-536.	2.2	29
156	The aerosol effect. Nature, 2012, 490, 40-41.	27.8	29
157	Radiative convective equilibrium as a framework for studying the interaction between convection and its largeâ€scale environment. Journal of Advances in Modeling Earth Systems, 2016, 8, 1330-1344.	3.8	28
158	Tropical Cyclones in Global Storm-Resolving Models. Journal of the Meteorological Society of Japan, 2021, 99, 579-602.	1.8	28
159	Re-Examining the First Climate Models: Climate Sensitivity of a Modern Radiativeâ€“Convective Equilibrium Model. Journal of Climate, 2019, 32, 8111-8125.	3.2	27
160	First forcing estimates from the future CMIP6 scenarios of anthropogenic aerosol optical properties and an associated Twomey effect. Geoscientific Model Development, 2019, 12, 989-1007.	3.6	27
161	Characterization and Evolution of Organized Shallow Convection in the Downstream North Atlantic Trades. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2021JD034575.	3.3	27
162	JOANNE: Joint dropsonde Observations of the Atmosphere in tropical North atlaNtic meso-scale Environments. Earth System Science Data, 2021, 13, 5253-5272.	9.9	27

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163	Climate and climate sensitivity to changing <scp>CO</scp>₂ on an idealized land planet. Journal of Advances in Modeling Earth Systems, 2014, 6, 1205-1223.	3.8	26
164	Ship- and island-based atmospheric soundings from the 2020 EUREC⁴A field campaign. Earth System Science Data, 2021, 13, 491-514.	9.9	26
165	On the relationship among cloud turbulence, droplet formation and drizzle as viewed by Doppler radar, microwave radiometer and lidar. Journal of Geophysical Research, 1999, 104, 22195-22203.	3.3	25
166	How important is the vertical structure for the representation of aerosol impacts on the diurnal cycle of marine stratocumulus?. Atmospheric Chemistry and Physics, 2009, 9, 4039-4052.	4.9	25
167	Maddenâ€Julian oscillation as simulated by the MPI Earth System Model: Over the last and into the next millennium. Journal of Advances in Modeling Earth Systems, 2013, 5, 71-84.	3.8	25
168	Divergence and Vorticity from Aircraft Air Motion Measurements. Journal of Atmospheric and Oceanic Technology, 2007, 24, 2062-2072.	1.3	24
169	Scale Dependency of Total Water Variance and Its Implication for Cloud Parameterizations. Journals of the Atmospheric Sciences, 2013, 70, 3615-3630.	1.7	24
170	EUREC⁴A's <i>HALO</i>. Earth System Science Data, 2021, 13, 5545-5563.	9.9	24
171	Assessment of different metrics for physical climate feedbacks. Climate Dynamics, 2013, 41, 1173-1185.	3.8	23
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