Roel A J Neggers

List of Publications by Year
in descending order

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45 papers	2,382 citations	304743 22 h-index	233421 45 g-index
63 all docs	63 docs citations	63 times ranked	2290 citing authors

#	Article	IF	Citations
1	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
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.	2.7	224
3	Simulations of Trade Wind Cumuli under a Strong Inversion. Journals of the Atmospheric Sciences, 2001, 58, 1870-1891.	1.7	212
4	A Multiparcel Model for Shallow Cumulus Convection. Journals of the Atmospheric Sciences, 2002, 59, 1655-1668.	1.7	147
5	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
6	A Dual Mass Flux Framework for Boundary Layer Convection. Part I: Transport. Journals of the Atmospheric Sciences, 2009, 66, 1465-1487.	1.7	119
7	Size Statistics of Cumulus Cloud Populations in Large-Eddy Simulations. Journals of the Atmospheric Sciences, 2003, 60, 1060-1074.	1.7	115
8	Role of air-mass transformations in exchange between the Arctic and mid-latitudes. Nature Geoscience, 2018, 11, 805-812.	12.9	105
9	A Dual Mass Flux Framework for Boundary Layer Convection. Part II: Clouds. Journals of the Atmospheric Sciences, 2009, 66, 1489-1506.	1.7	91
10	Impact Mechanisms of Shallow Cumulus Convection on Tropical Climate Dynamics*. Journal of Climate, 2007, 20, 2623-2642.	3.2	85
11	Continuous Single-Column Model Evaluation at a Permanent Meteorological Supersite. Bulletin of the American Meteorological Society, 2012, 93, 1389-1400.	3.3	79
12	Cloud representation in general-circulation models over the northern Pacific Ocean: A EUROCS intercomparison study. Quarterly Journal of the Royal Meteorological Society, 2004, 130, 3245-3267.	2.7	77
13	The Atmospheric Boundary Layer and the â€œGray Zoneâ€•ofÂTurbulence: A Critical Review. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2019JD030317.	3.3	66
14	Exploring binâ€macrophysics models for moist convective transport and clouds. Journal of Advances in Modeling Earth Systems, 2015, 7, 2079-2104.	3.8	63
15	A simple equilibrium model for shallow-cumulus-topped mixed layers. Theoretical and Computational Fluid Dynamics, 2006, 20, 305-322.	2.2	62
16	The GASS/EUCLIPSE model intercomparison of the stratocumulus transition as observed during ASTEX: LES results. Journal of Advances in Modeling Earth Systems, 2013, 5, 483-499.	3.8	55
17	Shallow cumulus convection: A validation of large-eddy simulation against aircraft and Landsat observations. Quarterly Journal of the Royal Meteorological Society, 2003, 129, 2671-2696.	2.7	53
18	An Evaluation of Mass Flux Closures for Diurnal Cycles of Shallow Cumulus. Monthly Weather Review, 2004, 132, 2525-2538.	1.4	48

#	Article	IF	Citations
19	Evaluation of Precipitation Simulated by Seven SCMs against the ARM Observations at the SGP Site*. Journal of Climate, 2013, 26, 5467-5492.	3.2	31
20	Overlap statistics of cumuliform boundary-layer cloud fields in large-eddy simulations. Journal of Geophysical Research, 2011, 116, .	3.3	29
21	Singleâ€Column Model Simulations of Subtropical Marine Boundaryâ€Layer Cloud Transitions Under Weakening Inversions. Journal of Advances in Modeling Earth Systems, 2017, 9, 2385-2412.	3.8	27
22	Investigating the Diurnal Evolution of the Cloud Size Distribution of Continental Cumulus Convection Using Multiday LES. Journals of the Atmospheric Sciences, 2019, 76, 729-747.	1.7	26
23	Local and Remote Controls on Arctic Mixedâ€Layer Evolution. Journal of Advances in Modeling Earth Systems, 2019, 11, 2214-2237.	3.8	24
24	Power-Law Scaling in the Internal Variability of Cumulus Cloud Size Distributions due to Subsampling and Spatial Organization. Journals of the Atmospheric Sciences, 2019, 76, 1489-1503.	1.7	22
25	Attributing the behavior of lowâ€level clouds in largeâ€scale models to subgridâ€scale parameterizations. Journal of Advances in Modeling Earth Systems, 2015, 7, 2029-2043.	3.8	20
26	Variance scaling in shallowâ€cumulusâ€topped mixed layers. Quarterly Journal of the Royal Meteorological Society, 2007, 133, 1629-1641.	2.7	19
27	Constraining a System of Interacting Parameterizations through Multiple-Parameter Evaluation: Tracing a Compensating Error between Cloud Vertical Structure and Cloud Overlap. Journal of Climate, 2013, 26, 6698-6715.	3.2	17
28	Evaluation of boundary layer cloud parameterizations in the ECHAM5 general circulation model using CALIPSO and CloudSat satellite data. Journal of Advances in Modeling Earth Systems, 2014, 6, 300-314.	3.8	17
29	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
30	ARMâ€™s Impact on Numerical Weather Prediction at ECMWF. Meteorological Monographs, 2016, 57, 28.1-28.13.	5.0	13
31	Modeled Contrast in the Response of the Surface Energy Balance to Heat Waves for Forest and Grassland. Journal of Hydrometeorology, 2014, 15, 973-989.	1.9	12
32	Can We Use Singleâ€Column Models for Understanding the Boundary Layer Cloudâ€Climate Feedback?. Journal of Advances in Modeling Earth Systems, 2018, 10, 245-261.	3.8	12
33	Case study of a humidity layer above Arctic stratocumulus and potential turbulent coupling with the cloud top. Atmospheric Chemistry and Physics, 2021, 21, 6347-6364.	4.9	12
34	Evaluation of Cloud Fraction Simulated by Seven SCMs against the ARM Observations at the SGP Site*. Journal of Climate, 2014, 27, 6698-6719.	3.2	10
35	Investigating the Scale Adaptivity of a Size-Filtered Mass Flux Parameterization in the Gray Zone of Shallow Cumulus Convection. Journals of the Atmospheric Sciences, 2018, 75, 1195-1214.	1.7	10
36	What determines the fate of rising parcels in a heterogeneous environment?. Journal of Advances in Modeling Earth Systems, 2016, 8, 1674-1690.	3.8	9

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37	Linking Largeâ€Eddy Simulations to Local Cloud Observations. Journal of Advances in Modeling Earth Systems, 2020, 12, e2020MS002209.	3.8	9
38	A case study of tropopause cyclogenesis. Meteorological Applications, 2003, 10, 187-199.	2.1	8
39	Longâ€term singleâ€column model intercomparison of diurnal cycle of precipitation over midlatitude and tropical land. Quarterly Journal of the Royal Meteorological Society, 2022, 148, 641-669.	2.7	6
40	A Binomial Stochastic Framework for Efficiently Modeling Discrete Statistics of Convective Populations. Journal of Advances in Modeling Earth Systems, 2021, 13, e2020MS002229.	3.8	5
41	Size dependence in chord characteristics from simulated and observed continental shallow cumulus. Atmospheric Chemistry and Physics, 2020, 20, 10211-10230.	4.9	4
42	The GASS/EUCLIPSE model intercomparison of the stratocumulus transition as observed during ASTEX: LES results. Journal of Advances in Modeling Earth Systems, 2013, , n/a-n/a.	3.8	3
43	Evaluating and Improving a PDF Cloud Scheme Using Highâ€Resolution Super Large Domain Simulations. Journal of Advances in Modeling Earth Systems, 2018, 10, 2245-2268.	3.8	2
44	Configuring LES Based on Dropsonde Data in Sparsely Sampled Areas in the Subtropical Atlantic. Journal of Applied Meteorology and Climatology, 2020, 59, 297-315.	1.5	2
45	Sizeâ€Dependent Characteristics of Surfaceâ€Rooted Threeâ€Dimensional Convective Objects in Continental Shallow Cumulus Simulations. Journal of Advances in Modeling Earth Systems, 2022, 14, .	3.8	2