Stephan R De Roode

List of Publications by Year
in descending order

46 papers	2,650 citations	257450 24 h-index	233421 45 g-index
54 all docs	54 docs citations	54 times ranked	2328 citing authors

#	Article	IF	Citations
1	Evaluation of Large-Eddy Simulations via Observations of Nocturnal Marine Stratocumulus. Monthly Weather Review, 2005, 133, 1443-1462.	1.4	519
2	Formulation of the Dutch Atmospheric Large-Eddy Simulation (DALES) and overview of its applications. Geoscientific Model Development, 2010, 3, 415-444.	3.6	213
3	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
4	Large-Eddy Simulation: How Large is Large Enough?. Journals of the Atmospheric Sciences, 2004, 61, 403-421.	1.7	135
5	Marine low cloud sensitivity to an idealized climate change: The CGILS LES intercomparison. Journal of Advances in Modeling Earth Systems, 2013, 5, 234-258.	3.8	128
6	Observations and numerical simulations of the diurnal cycle of the EUROCS stratocumulus case. Quarterly Journal of the Royal Meteorological Society, 2004, 130, 3269-3296.	2.7	113
7	Observed Lagrangian Transition of Stratocumulus into Cumulus during ASTEX: Mean State and Turbulence Structure. Journals of the Atmospheric Sciences, 1997, 54, 2157-2173.	1.7	112
8	Understanding Convective Extreme Precipitation Scaling Using Observations and an Entraining Plume Model. Journals of the Atmospheric Sciences, 2013, 70, 3641-3655.	1.7	107
9	Towards Adaptive Grids for Atmospheric Boundary-Layer Simulations. Boundary-Layer Meteorology, 2018, 167, 421-443.	2.3	91
10	Parameterization of the Vertical Velocity Equation for Shallow Cumulus Clouds. Monthly Weather Review, 2012, 140, 2424-2436.	1.4	87
11	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
12	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
13	A singleâ€column model intercomparison of a heavily drizzling stratocumulusâ€topped boundary layer. Journal of Geophysical Research, 2007, 112, .	3.3	60
14	An LES model study of the influence of the free tropospheric thermodynamic conditions on the stratocumulus response to a climate perturbation. Journal of Advances in Modeling Earth Systems, 2015, 7, 670-691.	3.8	60
15	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
16	Improved model output statistics of numerical weather prediction based irradiance forecasts for solar power applications. Solar Energy, 2015, 118, 634-645.	6.1	49
17	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
18	A depolarisation lidar-based method for the determination of liquid-cloud microphysical properties. Atmospheric Measurement Techniques, 2015, 8, 237-266.	3.1	47

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19	Factors Controlling Rapid Stratocumulus Cloud Thinning. Journals of the Atmospheric Sciences, 2014, 71, 655-664.	1.7	44
20	Analogies between Mass-Flux and Reynolds-Averaged Equations. Journals of the Atmospheric Sciences, 2000, 57, 1585-1598.	1.7	41
21	A mixedâ€layer model study of the stratocumulus response to changes in largeâ€scale conditions. Journal of Advances in Modeling Earth Systems, 2014, 6, 1256-1270.	3.8	35
22	A singleâ€column model intercomparison on the stratocumulus representation in presentâ€day and future climate. Journal of Advances in Modeling Earth Systems, 2015, 7, 617-647.	3.8	33
23	The Scaling Behaviour of a Turbulent Kinetic Energy Closure Model for Stably Stratified Conditions. Boundary-Layer Meteorology, 2008, 127, 17-36.	2.3	32
24	Do stratocumulus clouds detrain? FIRE I data revisited. Boundary-Layer Meteorology, 2007, 122, 479-491.	2.3	29
25	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
26	How large-scale subsidence affects stratocumulus transitions. Atmospheric Chemistry and Physics, 2016, 16, 691-701.	4.9	26
27	Dew Formation, Eddy-Correlation Latent Heat Fluxes, and the Surface Energy Imbalance at Cabauw During Stable Conditions. Boundary-Layer Meteorology, 2010, 135, 369-383.	2.3	25
28	Surface energy balance and turbulence characteristics observed at the SHEBA Ice Camp during FIRE III. Journal of Geophysical Research, 2001, 106, 15313-15322.	3.3	24
29	Transitions in the wintertime nearâ€surface temperature inversion at Dome C, Antarctica. Quarterly Journal of the Royal Meteorological Society, 2019, 145, 930-946.	2.7	23
30	A Diagnosis of Excessive Mixing in Smagorinsky Subfilter-Scale Turbulent Kinetic Energy Models. Journals of the Atmospheric Sciences, 2017, 74, 1495-1511.	1.7	22
31	Mass-Flux Budgets of Shallow Cumulus Clouds. Journals of the Atmospheric Sciences, 2003, 60, 137-151.	1.7	22
32	A mixedâ€layer model perspective on stratocumulus steady states in a perturbed climate. Quarterly Journal of the Royal Meteorological Society, 2014, 140, 2119-2131.	2.7	19
33	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
34	How Wind Shear Affects Tradeâ€wind Cumulus Convection. Journal of Advances in Modeling Earth Systems, 2020, 12, e2020MS002183.	3.8	16
35	Countergradient Fluxes of Conserved Variables in the Clear convective and Stratocumulus-topped Boundary Layer: The role of the Entrainment Flux. Boundary-Layer Meteorology, 2004, 112, 179-196.	2.3	15
36	The effect of temperature and humidity fluctuations on the liquid water path of nonâ€precipitating closedâ€cell stratocumulus clouds. Quarterly Journal of the Royal Meteorological Society, 2008, 134, 403-416.	2.7	13

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37	Addressing the Grid-Size Sensitivity Issue in Large-Eddy Simulations of Stable Boundary Layers. Boundary-Layer Meteorology, 2021, 178, 63-89.	2.3	13
38	Evaluation of lowâ€cloud climate feedback through singleâ€column model equilibrium states. Quarterly Journal of the Royal Meteorological Society, 2015, 141, 819-832.	2.7	11
39	Surface and tethered-balloon observations of actinic flux: Effects of arctic stratus, surface albedo, and solar zenith angle. Journal of Geophysical Research, 2001, 106, 27497-27507.	3.3	10
40	The Influence of Convective Momentum Transport and Vertical Wind Shear on the Evolution of a Cold Air Outbreak. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS001991.	3.8	10
41	The Role of Eddy Diffusivity Profiles on Stratocumulus Liquid Water Path Biases. Monthly Weather Review, 2007, 135, 2786-2793.	1.4	6
42	Building the Next Generation of Climate Modelers: Scale-Aware Physics Parameterization and the â€œGrey Zoneâ€•Challenge. Bulletin of the American Meteorological Society, 2018, 99, ES185-ES189.	3.3	5
43	An Isotropic Light Sensor for Measurements of Visible Actinic Flux in Clouds. Journal of Atmospheric and Oceanic Technology, 1999, 16, 1698-1701.	1.3	3
44	Model development in practice: a comprehensive update to the boundary layer schemes in HARMONIE-AROME cycle 40. Geoscientific Model Development, 2022, 15, 1513-1543.	3.6	3
45	Depolarization Lidar Determination Of Cloud-Base Microphysical Properties. EPJ Web of Conferences, 2016, 119, 16010.	0.3	1
46	A Bound on Ekman Pumping. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS001976.	3.8	0