Christian Barthlott

List of Publications by Year
in descending order

43 papers	1,720 citations	304743 22 h-index	289244 40 g-index
56 all docs	56 docs citations	56 times ranked	1674 citing authors

#	Article	IF	Citations
1	Importance of aerosols and shape of the cloud droplet size distribution for convective clouds and precipitation. Atmospheric Chemistry and Physics, 2022, 22, 2153-2172.	4.9	10
2	Combined effects of soil moisture and microphysical perturbations on convective clouds and precipitation for a locally forced case over Central Europe. Quarterly Journal of the Royal Meteorological Society, 2022, 148, 2132-2146.	2.7	4
3	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.	1.7	33
4	Large impact of tiny model domain shifts for the PentecostÂ2014 mesoscale convective system over Germany. Weather and Climate Dynamics, 2020, 1, 207-224.	3.5	3
5	Relative contribution of soil moisture, boundaryâ€łayer and microphysical perturbations on convective predictability in different weather regimes. Quarterly Journal of the Royal Meteorological Society, 2019, 145, 3102-3115.	2.7	37
6	Relative impact of aerosol, soil moisture, and orography perturbations on deep convection. Atmospheric Chemistry and Physics, 2019, 19, 12343-12359.	4.9	15
7	The precipitation response to variable terrain forcing over low mountain ranges in different weather regimes. Quarterly Journal of the Royal Meteorological Society, 2018, 144, 970-989.	2.7	19
8	The effect of secondary ice production parameterization on the simulation of a cold frontal rainband. Atmospheric Chemistry and Physics, 2018, 18, 16461-16480.	4.9	19
9	Aerosol Effects on Clouds and Precipitation over Central Europe in Different Weather Regimes. Journals of the Atmospheric Sciences, 2018, 75, 4247-4264.	1.7	24
10	Cloud Top Phase Distributions of Simulated Deep Convective Clouds. Journal of Geophysical Research D: Atmospheres, 2018, 123, 10,464.	3.3	4
11	Moist Orographic Convection: Physical Mechanisms and Links to Surface-Exchange Processes. Atmosphere, 2018, 9, 80.	2.3	111
12	Aerosol- and Droplet-Dependent Contact Freezing: Parameterization Development and Case Study. Journals of the Atmospheric Sciences, 2017, 74, 2229-2245.	1.7	5
13	Largeâ€ęddy simulations over Germany using ICON: a comprehensive evaluation. Quarterly Journal of the Royal Meteorological Society, 2017, 143, 69-100.	2.7	175
14	The HD(CP)² Observational Prototype Experiment (HOPE) â€“ an overview. Atmospheric Chemistry and Physics, 2017, 17, 4887-4914.	4.9	67
15	Sensitivity of the 2014 Pentecost storms over Germany to different model grids and microphysics schemes. Quarterly Journal of the Royal Meteorological Society, 2017, 143, 1485-1503.	2.7	21
16	Mechanisms initiating heavy precipitation over Italy during HyMeX Special Observation Period 1: a numerical case study using two mesoscale models. Quarterly Journal of the Royal Meteorological Society, 2016, 142, 238-258.	2.7	18
17	The role of Corsica in initiating nocturnal offshore convection. Quarterly Journal of the Royal Meteorological Society, 2016, 142, 222-237.	2.7	30
18	Spatial and temporal variability of clouds and precipitation over Germany: multiscale simulations across the "gray zone". Atmospheric Chemistry and Physics, 2015, 15, 12361-12384.	4.9	28

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19	The influence of Sardinia on Corsican rainfall in the western Mediterranean Sea: A numerical sensitivity study. Atmospheric Research, 2015, 153, 451-464.	4.1	8
20	Impact of upstream flow conditions on the initiation of moist convection over the island of Corsica. Atmospheric Research, 2014, 145-146, 279-296.	4.1	10
21	Sensitivity of deep convection to terrain forcing over Mediterranean islands. Quarterly Journal of the Royal Meteorological Society, 2013, 139, 1762-1779.	2.7	42
22	Soil moisture impacts on convective indices and precipitation over complex terrain. Meteorologische Zeitschrift, 2011, 20, 185-197.	1.0	19
23	A Numerical Sensitivity Study on the Impact of Soil Moisture on Convection-Related Parameters and Convective Precipitation over Complex Terrain. Journals of the Atmospheric Sciences, 2011, 68, 2971-2987.	1.7	44
24	The dependence of convectionâ€related parameters on surface and boundaryâ€layer conditions over complex terrain. Quarterly Journal of the Royal Meteorological Society, 2011, 137, 70-80.	2.7	33
25	Initiation of deep convection at marginal instability in an ensemble of mesoscale models: a caseâ€study from COPS. Quarterly Journal of the Royal Meteorological Society, 2011, 137, 118-136.	2.7	49
26	Forecasting summer convection over the Black Forest: a case study from the Convective and Orographicallyâ€induced Precipitation Study (COPS) experiment. Quarterly Journal of the Royal Meteorological Society, 2011, 137, 101-117.	2.7	19
27	The Convective and Orographicallyâ€induced Precipitation Study (COPS): the scientific strategy, the field phase, and research highlights. Quarterly Journal of the Royal Meteorological Society, 2011, 137, 3-30.	2.7	181
28	Processes driving deep convection over complex terrain: a multiâ€scale analysis of observations from COPS IOP 9c. Quarterly Journal of the Royal Meteorological Society, 2011, 137, 137-155.	2.7	48
29	Soil moisture variability and its influence on convective precipitation over complex terrain. Quarterly Journal of the Royal Meteorological Society, 2011, 137, 42-56.	2.7	48
30	Model representation of boundary-layer convergence triggering deep convection over complex terrain: A case study from COPS. Atmospheric Research, 2010, 95, 172-185.	4.1	35
31	Observations of Kinematics and Thermodynamic Structure Surrounding a Convective Storm Cluster over a Low Mountain Range. Monthly Weather Review, 2009, 137, 585-602.	1.4	26
32	Multi-model simulations of a convective situation in low-mountain terrain in central Europe. Meteorology and Atmospheric Physics, 2009, 103, 95-103.	2.0	31
33	Impact of Terrain Heterogeneity on Coherent Structure Properties: Numerical Approach. Boundary-Layer Meteorology, 2009, 133, 71-92.	2.3	21
34	The impact of convergence zones on the initiation of deep convection: A case study from COPS. Atmospheric Research, 2009, 93, 680-694.	4.1	77
35	Impact of terrain heterogeneity on near-surface turbulence structure. Atmospheric Research, 2009, 94, 254-269.	4.1	19
36	La campagne Cops : genÃ¨se et cycle de vie de la convection en rÃ©gion montagneuse. La MÃ©tÃ©orologie, 2009, 8, 32.	0.5	6

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37	Emergence and Secondary Instability of Ekman Layer Rolls. Journals of the Atmospheric Sciences, 2008, 65, 2326-2342.	1.7	14
38	Mechanisms initiating deep convection over complex terrain during COPS. Meteorologische Zeitschrift, 2008, 17, 931-948.	1.0	86
39	The Convective Storm Initiation Project. Bulletin of the American Meteorological Society, 2007, 88, 1939-1956.	3.3	110
40	Long-term study of coherent structures in the atmospheric surface layer. Boundary-Layer Meteorology, 2007, 125, 1-24.	2.3	72
41	The influence of mesoscale circulation systems on triggering convective cells over complex terrain. Atmospheric Research, 2006, 81, 150-175.	4.1	69
42	Turbulence Structure in the Wake Region of a Meteorological Tower. Boundary-Layer Meteorology, 2003, 108, 175-190.	2.3	19
43	Influence of high-frequency radiation on turbulence measurements on a 200 m tower. Meteorologische Zeitschrift, 2003, 12, 67-71.	1.0	10