Schar

List of Publications by Year
in descending order

202 papers	23,968 citations	7551 77 h-index	8370 147 g-index
255 all docs	255 docs citations	255 times ranked	17507 citing authors

#	Article	IF	Citations
1	The role of increasing temperature variability in European summer heatwaves. Nature, 2004, 427, 332-336.	13.7	2,373
2	Landâ€“atmosphere coupling and climate change in Europe. Nature, 2006, 443, 205-209.	13.7	1,325
3	Consistent geographical patterns of changes in high-impact European heatwaves. Nature Geoscience, 2010, 3, 398-403.	5.4	851
4	Soil Moistureâ€“Atmosphere Interactions during the 2003 European Summer Heat Wave. Journal of Climate, 2007, 20, 5081-5099.	1.2	757
5	A precipitation climatology of the Alps from high-resolution rain-gauge observations. International Journal of Climatology, 1998, 18, 873-900.	1.5	735
6	Regional climate modeling on European scales: a joint standard evaluation of the EURO-CORDEX RCM ensemble. Geoscientific Model Development, 2014, 7, 1297-1333.	1.3	711
7	An inter-comparison of regional climate models for Europe: model performance in present-day climate. Climatic Change, 2007, 81, 31-52.	1.7	602
8	Contribution of land-atmosphere coupling to recent European summer heat waves. Geophysical Research Letters, 2007, 34, .	1.5	512
9	The Soilâ€“Precipitation Feedback: A Process Study with a Regional Climate Model. Journal of Climate, 1999, 12, 722-741.	1.2	482
10	Understanding flood regime changes in Europe: a state-of-the-art assessment. Hydrology and Earth System Sciences, 2014, 18, 2735-2772.	1.9	423
11	The global energy balance from a surface perspective. Climate Dynamics, 2013, 40, 3107-3134.	1.7	368
12	Seasonality and Interannual Variability of the Westerly Jet in the Tibetan Plateau Region*. Journal of Climate, 2009, 22, 2940-2957.	1.2	359
13	Hot news from summer 2003. Nature, 2004, 432, 559-560.	13.7	350
14	Heavy precipitation in a changing climate: Does shortâ€term summer precipitation increase faster?. Geophysical Research Letters, 2015, 42, 1165-1172.	1.5	338
15	Evaluation of the convection-resolving regional climate modeling approach in decade-long simulations. Journal of Geophysical Research D: Atmospheres, 2014, 119, 7889-7907.	1.2	327
16	The Soil Moistureâ€“Precipitation Feedback in Simulations with Explicit and Parameterized Convection. Journal of Climate, 2009, 22, 5003-5020.	1.2	325
17	Detection Probability of Trends in Rare Events: Theory and Application to Heavy Precipitation in the Alpine Region. Journal of Climate, 2001, 14, 1568-1584.	1.2	314
18	Quantifying uncertainty sources in an ensemble of hydrological climateâ€impact projections. Water Resources Research, 2013, 49, 1523-1536.	1.7	284

#	Article	IF	Citations
19	Anthropogenic intensification of short-duration rainfall extremes. Nature Reviews Earth & Environment, 2021, 2, 107-122.	12.2	279
20	Surrogate climate-change scenarios for regional climate models. Geophysical Research Letters, 1996, 23, 669-672.	1.5	277
21	The energy balance over land and oceans: an assessment based on direct observations and CMIP5 climate models. Climate Dynamics, 2015, 44, 3393-3429.	1.7	239
22	Shallow-Water Flow past Isolated Topography. Part I: Vorticity Production and Wake Formation. Journals of the Atmospheric Sciences, 1993, 50, 1373-1400.	0.6	225
23	Future changes in daily summer temperature variability: driving processes and role for temperature extremes. Climate Dynamics, 2009, 33, 917-935.	1.7	225
24	An Improved Snow Scheme for the ECMWF Land Surface Model: Description and Offline Validation. Journal of Hydrometeorology, 2010, 11, 899-916.	0.7	221
25	A New Terrain-Following Vertical Coordinate Formulation for Atmospheric Prediction Models. Monthly Weather Review, 2002, 130, 2459-2480.	0.5	211
26	Projections of extreme precipitation events in regional climate simulations for Europe and the Alpine Region. Journal of Geophysical Research D: Atmospheres, 2013, 118, 3610-3626.	1.2	209
27	Enhanced summer convective rainfall at Alpine high elevations in response to climate warming. Nature Geoscience, 2016, 9, 584-589.	5.4	197
28	Percentile indices for assessing changes in heavy precipitation events. Climatic Change, 2016, 137, 201-216.	1.7	197
29	Heavy precipitation processes in a warmer climate. Geophysical Research Letters, 1998, 25, 1431-1434.	1.5	195
30	Climate goals and computing the future of clouds. Nature Climate Change, 2017, 7, 3-5.	8.1	177
31	A first-of-its-kind multi-model convection permitting ensemble for investigating convective phenomena over Europe and the Mediterranean. Climate Dynamics, 2020, 55, 3-34.	1.7	176
32	Vortex Formation and Vortex Shedding in Continuously Stratified Flows past Isolated Topography. Journals of the Atmospheric Sciences, 1997, 54, 534-554.	0.6	170
33	Modelling daily temperature extremes: recent climate and future changes over Europe. Climatic Change, 2007, 81, 249-265.	1.7	169
34	Combined surface solar brightening and increasing greenhouse effect support recent intensification of the global landâ€based hydrological cycle. Geophysical Research Letters, 2008, 35, .	1.5	168
35	Bayesian multi-model projection of climate: bias assumptions and interannual variability. Climate Dynamics, 2009, 33, 849-868.	1.7	162
36	Validation of present-day regional climate simulations over Europe: LAM simulations with observed boundary conditions. Climate Dynamics, 1997, 13, 489-506.	1.7	160

#	Article	IF	Citations
37	Towards climate simulations at cloud-resolving scales. Meteorologische Zeitschrift, 2008, 17, 383-394.	0.5	157
38	The precipitation climate of Central Asiaâ€"intercomparison of observational and numerical data sources in a remote semiarid region. International Journal of Climatology, 2008, 28, 295-314.	1.5	149
39	Modelling European winter wind storm losses in current and future climate. Climatic Change, 2010, 101, 485-514.	1.7	148
40	Predictability and Error Growth Dynamics in Cloud-Resolving Models. Journals of the Atmospheric Sciences, 2007, 64, 4467-4478.	0.6	146
41	Predictability and uncertainty in a regional climate model. Journal of Geophysical Research, 2003, 108, .	3.3	144
42	Projections of Future Precipitation Extremes Over Europe: A Multimodel Assessment of Climate Simulations. Journal of Geophysical Research D: Atmospheres, 2017, 122, 10,773.	1.2	139
43	Atmospheric Predictability at Synoptic Versus Cloud-Resolving Scales. Bulletin of the American Meteorological Society, 2007, 88, 1783-1794.	1.7	137
44	Analysis of ERA40-driven CLM simulations for Europe. Meteorologische Zeitschrift, 2008, 17, 349-367.	0.5	128
45	The Palette of Fronts and Cyclones within a Baroclinic Wave Development. Journals of the Atmospheric Sciences, 1991, 48, 1666-1689.	0.6	124
46	A principal component and long-term trend analysis of daily precipitation in Switzerland. International Journal of Climatology, 1997, 17, 1333-1356.	1.5	121
47	MAP D-PHASE: Real-Time Demonstration of Weather Forecast Quality in the Alpine Region. Bulletin of the American Meteorological Society, 2009, 90, 1321-1336.	1.7	121
48	Inferring Changes in Terrestrial Water Storage Using ERA-40 Reanalysis Data: The Mississippi River Basin. Journal of Climate, 2004, 17, 2039-2057.	1.2	118
49	Mesoscale precipitation variability in the region of the European Alps during the 20th century. International Journal of Climatology, 2002, 22, 1049-1074.	1.5	114
50	European climate change at global mean temperature increases of 1.5 and 2â€¯Â°C above pre-industrial conditions as simulated by the EURO-CORDEX regional climate models. Earth System Dynamics, 2018, 9, 459-478.	2.7	114
51	The first multi-model ensemble of regional climate simulations at kilometer-scale resolution, part I: evaluation of precipitation. Climate Dynamics, 2021, 57, 275-302.	1.7	114
52	European summer climate variability in a heterogeneous multi-model ensemble. Climatic Change, 2007, 81, 209-232.	1.7	110
53	Near-global climate simulation at 1â€‰km resolution: establishing a performance baseline on 4888â€‰GPUs with COSMO 5.0. Geoscientific Model Development, 2018, 11, 1665-1681.	1.3	110
54	Low-Level Potential Vorticity and Cyclogenesis to the Lee of the Alps. Journals of the Atmospheric Sciences, 1998, 55, 186-207.	0.6	107

#	Article	IF	Citations
55	Changes in European summer temperature variability revisited. Geophysical Research Letters, 2012, 39, .	1.5	106
56	Evaluation of the convectionâ€resolving climate modeling approach on continental scales. Journal of Geophysical Research D: Atmospheres, 2017, 122, 5237-5258.	1.2	105
57	Causes for decadal variations of wind speed over land: Sensitivity studies with a global climate model. Geophysical Research Letters, 2012, 39, .	1.5	101
58	The first multi-model ensemble of regional climate simulations at kilometer-scale resolution part 2: historical and future simulations of precipitation. Climate Dynamics, 2021, 56, 3581-3602.	1.7	101
59	Hydrologic simulations in the Rhine basin driven by a regional climate model. Journal of Geophysical Research, 2005, 110, .	3.3	100
60	Alpine snow cover in a changing climate: a regional climate model perspective. Climate Dynamics, 2013, 41, 735-754.	1.7	99
61	Bias patterns and climate change signals in GCM-RCM model chains. Environmental Research Letters, 2018, 13, 074017.	2.2	98
62	Predictability of Precipitation in a Cloud-Resolving Model. Monthly Weather Review, 2004, 132, 560-577.	0.5	97
63	Kilometer-Scale Climate Models: Prospects and Challenges. Bulletin of the American Meteorological Society, 2020, 101, E567-E587.	1.7	96
64	Pan-European climate at convection-permitting scale: a model intercomparison study. Climate Dynamics, 2020, 55, 35-59.	1.7	94
65	Shallow-Water Flow past Isolated Topography. Part II: Transition to Vortex Shedding. Journals of the Atmospheric Sciences, 1993, 50, 1401-1412.	0.6	93
66	Spectral representation of the annual cycle in the climate change signal. Hydrology and Earth System Sciences, 2011, 15, 2777-2788.	1.9	92
67	The worst heat waves to come. Nature Climate Change, 2016, 6, 128-129.	8.1	92
68	Climate dynamics and extreme precipitation and flood events in Central Europe. Integrated Assessment: an International Journal, 2000, 1, 281-300.	0.8	91
69	Elevation gradients of European climate change in the regional climate model COSMO-CLM. Climatic Change, 2012, 112, 189-215.	1.7	91
70	The Global Energy Balance Archive (GEBA) versionÂ2017: a database for worldwide measured surface energy fluxes. Earth System Science Data, 2017, 9, 601-613.	3.7	91
71	Summer dryness in a warmer climate: a process study with a regional climate model. Climate Dynamics, 2002, 20, 69-85.	1.7	90
72	Separating climate change signals into thermodynamic, lapse-rate and circulation effects: theory and application to the European summer climate. Climate Dynamics, 2017, 48, 3425-3440.	1.7	88

#	Article	IF	Citations
73	A gridded hourly precipitation dataset for Switzerland using rainâ€gauge analysis and radarâ€based disaggregation. International Journal of Climatology, 2010, 30, 1764-1775.	1.5	87
74	Aspects of the diurnal cycle in a regional climate model. Meteorologische Zeitschrift, 2008, 17, 433-443.	0.5	84
75	Probabilistic Flood Forecasting with a Limited-Area Ensemble Prediction System: Selected Case Studies. Journal of Hydrometeorology, 2007, 8, 897-909.	0.7	83
76	A Synchronous and Iterative Flux-Correction Formalism for Coupled Transport Equations. Journal of Computational Physics, 1996, 128, 101-120.	1.9	82
77	Projected changes in surface solar radiation in CMIP5 global climate models and in EURO-CORDEX regional climate models for Europe. Climate Dynamics, 2017, 49, 2665-2683.	1.7	82
78	A Generalization of Bernoulli's Theorem. Journals of the Atmospheric Sciences, 1993, 50, 1437-1443.	0.6	81
79	Influence of the Background Wind on the Local Soil Moistureâ€"Precipitation Feedback. Journals of the Atmospheric Sciences, 2014, 71, 782-799.	0.6	80
80	Towards European-scale convection-resolving climate simulations with GPUs: a study with COSMO 4.19. Geoscientific Model Development, 2016, 9, 3393-3412.	1.3	78
81	Predictability Mysteries in Cloud-Resolving Models. Monthly Weather Review, 2006, 134, 2095-2107.	0.5	77
82	Frequent floods in the European Alps coincide with cooler periods of the past 2500 years. Scientific Reports, 2013, 3, 2770.	1.6	76
83	Seasonal Variations in Terrestrial Water Storage for Major Midlatitude River Basins. Journal of Hydrometeorology, 2006, 7, 39-60.	0.7	75
84	Future snowfall in the Alps: projections based on the EURO-CORDEX regional climate models. Cryosphere, 2018, 12, 1-24.	1.5	75
85	Interannual variability and regional climate simulations. Theoretical and Applied Climatology, 1996, 53, 185-209.	1.3	74
86	Climate Variability-Observations, Reconstructions, and Model Simulations for the Atlantic-European and Alpine Region from 1500-2100 AD. Climatic Change, 2006, 79, 9-29.	1.7	74
87	Climate change projections for Switzerland based on a Bayesian multiâ€model approach. International Journal of Climatology, 2012, 32, 2348-2371.	1.5	74
88	Cloudâ€resolving ensemble simulations of the August 2005 Alpine flood. Quarterly Journal of the Royal Meteorological Society, 2008, 134, 889-904.	1.0	73
89	An Instability of Mature Cold Fronts. Journals of the Atmospheric Sciences, 1990, 47, 929-950.	0.6	72
90	Climate impacts of European-scale anthropogenic vegetation changes: A sensitivity study using a regional climate model. Journal of Geophysical Research, 2001, 106, 7817-7835.	3.3	72

#	Article	IF	Citations
91	Does Quantile Mapping of Simulated Precipitation Correct for Biases in Transition Probabilities and Spell Lengths?. Journal of Climate, 2016, 29, 1605-1615.	1.2	71
92	Objective calibration of regional climate models. Journal of Geophysical Research, 2012, 117, .	3.3	68
93	Embedded Cellular Convection in Moist Flow past Topography. Journals of the Atmospheric Sciences, 2005, 62, 2810-2828.	0.6	67
94	Long-Term Simulations of Thermally Driven Flows and Orographic Convection at Convection-Parameterizing and Cloud-Resolving Resolutions. Journal of Applied Meteorology and Climatology, 2013, 52, 1490-1510.	0.6	67
95	Crossing Multiple Gray Zones in the Transition from Mesoscale to Microscale Simulation over Complex Terrain. Atmosphere, 2019, 10, 274.	1.0	66
96	Soil Control on Runoff Response to Climate Change in Regional Climate Model Simulations. Journal of Climate, 2005, 18, 3536-3551.	1.2	65
97	European temperature distribution changes in observations and climate change scenarios. Geophysical Research Letters, 2005, 32, n/a-n/a.	1.5	65
98	Fineâ€scale modeling of the boundary layer wind field over steep topography. Water Resources Research, 2008, 44, .	1.7	65
99	Causes of future Mediterranean precipitation decline depend on the season. Environmental Research Letters, 2019, 14, 114017.	2.2	65
100	A probabilistic view on the August 2005 floods in the upper Rhine catchment. Natural Hazards and Earth System Sciences, 2008, 8, 281-291.	1.5	63
101	Physical constraints for temperature biases in climate models. Geophysical Research Letters, 2013, 40, 4042-4047.	1.5	63
102	The Effect of Bottom Friction on Shallow-Water Flow past an Isolated Obstacle. Journals of the Atmospheric Sciences, 1995, 52, 1985-2005.	0.6	62
103	Bulk Convergence of Cloud-Resolving Simulations of Moist Convection over Complex Terrain. Journals of the Atmospheric Sciences, 2012, 69, 2207-2228.	0.6	62
104	The elevation dependency of 21st century European climate change: an <scp>RCM</scp> ensemble perspective. International Journal of Climatology, 2015, 35, 3902-3920.	1.5	61
105	Seasonal Runoff Forecasting Using Precipitation from Meteorological Data Assimilation Systems. Journal of Hydrometeorology, 2004, 5, 959-973.	0.7	60
106	A Generalization of the SLEVE Vertical Coordinate. Monthly Weather Review, 2010, 138, 3683-3689.	0.5	60
107	The Real-Time Ultrafinescale Forecast Support during the Special Observing Period of the MAP. Bulletin of the American Meteorological Society, 2002, 83, 85-109.	1.7	56
108	Towards advancing scientific knowledge of climate change impacts on short-duration rainfall extremes. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2021, 379, 20190542.	1.6	56

#	Article	IF	Citations
109	Structure and evolution of an isolated semi-geostrophic cyclone. Quarterly Journal of the Royal Meteorological Society, 1993, 119, 57-90.	1.0	55
110	COSMO-CLM regional climate simulations in the Coordinated Regional Climate Downscaling Experiment (CORDEX) framework: a review. Geoscientific Model Development, 2021, 14, 5125-5154.	1.3	55
111	Climate Models Permit Convection at Much Coarser Resolutions Than Previously Considered. Journal of Climate, 2020, 33, 1915-1933.	1.2	54
112	Idealised Numerical Experiments of Alpine Flow Regimes and Southside Precipitation Events. Meteorology and Atmospheric Physics, 2000, 72, 233-250.	0.9	52
113	Exploring Perturbed Physics Ensembles in a Regional Climate Model. Journal of Climate, 2012, 25, 4582-4599.	1.2	52
114	The Role of Hadley Circulation and Lapse-Rate Changes for the Future European Summer Climate. Journal of Climate, 2019, 32, 385-404.	1.2	50
115	Projected changes in precipitation intensity and frequency in Switzerland: a multiâ€model perspective. International Journal of Climatology, 2015, 35, 3204-3219.	1.5	49
116	Probabilistic seasonal prediction of the winter North Atlantic Oscillation and its impact on near surface temperature. Climate Dynamics, 2005, 24, 213-226.	1.7	48
117	Landâ€atmosphere coupling associated with snow cover. Geophysical Research Letters, 2011, 38, .	1.5	48
118	Structure and dynamics of an Alpine potential-vorticity banner. Quarterly Journal of the Royal Meteorological Society, 2003, 129, 825-855.	1.0	47
119	Reflecting on the Goal and Baseline for Exascale Computing: A Roadmap Based on Weather and Climate Simulations. Computing in Science and Engineering, 2019, 21, 30-41.	1.2	47
120	Near-surface wind variability over the broader Adriatic region: insights from an ensemble of regional climate models. Climate Dynamics, 2018, 50, 4455-4480.	1.7	46
121	Skill of Subseasonal Forecasts in Europe: Effect of Bias Correction and Downscaling Using Surface Observations. Journal of Geophysical Research D: Atmospheres, 2018, 123, 7999-8016.	1.2	45
122	Robust climate scenarios for sites with sparse observations: a twoâ€step bias correction approach. International Journal of Climatology, 2016, 36, 1226-1243.	1.5	44
123	Implementation and evaluation of aerosol and cloud microphysics in a regional climate model. Journal of Geophysical Research, 2011, 116, .	3.3	43
124	Assessment of Bias Assumptions for Climate Models. Journal of Climate, 2014, 27, 6799-6818.	1.2	43
125	Clouds in Convectionâ€Resolving Climate Simulations Over Europe. Journal of Geophysical Research D: Atmospheres, 2019, 124, 3849-3870.	1.2	42
126	Analysis of Alpine precipitation extremes using generalized extreme value theory in convection-resolving climate simulations. Climate Dynamics, 2020, 55, 61-75.	1.7	42

#	Article	IF	Citations
127	Reconstruction of Mesoscale Precipitation Fields from Sparse Observations in Complex Terrain. Journal of Climate, 2001, 14, 3289-3306.	1.2	41
128	Snow cover sensitivity to horizontal resolution, parameterizations, and atmospheric forcing in a land surface model. Journal of Geophysical Research, 2011, 116, .	3.3	41
129	Changing seasonality of moderate and extreme precipitation events in the Alps. Natural Hazards and Earth System Sciences, 2018, 18, 2047-2056.	1.5	40
130	The cloud-free global energy balance and inferred cloud radiative effects: an assessment based on direct observations and climate models. Climate Dynamics, 2019, 52, 4787-4812.	1.7	39
131	Convection-resolving precipitation forecasting and its predictability in Alpine river catchments. Journal of Hydrology, 2004, 288, 57-73.	2.3	38
132	An Idealized Cloud-Resolving Framework for the Study of Midlatitude Diurnal Convection over Land. Journals of the Atmospheric Sciences, 2011, 68, 1041-1057.	0.6	37
133	Hydrological Climate-Impact Projections for the Rhine River: GCMâ€“RCM Uncertainty and Separate Temperature and Precipitation Effects*. Journal of Hydrometeorology, 2014, 15, 697-713.	0.7	37
134	Objective Calibration of Regional Climate Models: Application over Europe and North America. Journal of Climate, 2016, 29, 819-838.	1.2	35
135	The Alpine snow-albedo feedback in regional climate models. Climate Dynamics, 2017, 48, 1109-1124.	1.7	35
136	A Groundwater and Runoff Formulation for Weather and Climate Models. Journal of Advances in Modeling Earth Systems, 2018, 10, 1809-1832.	1.3	32
137	Statistical Analysis of Aerosol Effects on Simulated Mixed-Phase Clouds and Precipitation in the Alps. Journals of the Atmospheric Sciences, 2011, 68, 1474-1492.	0.6	31
138	Collective Impacts of Orography and Soil Moisture on the Soil Moistureâ€Precipitation Feedback. Geophysical Research Letters, 2017, 44, 11,682.	1.5	31
139	Frontal modification and lee cyclogenesis in the Alps: A case study using the ALPEX reanalysis data set. Meteorology and Atmospheric Physics, 2001, 78, 89-105.	0.9	30
140	Bayesian multi-model projections of climate: generalization and application to ENSEMBLES results. Climate Research, 2010, 44, 227-241.	0.4	30
141	European daily precipitation according to EURO-CORDEX regional climate models (RCMs) and high-resolution global climate models (GCMs) from the High-Resolution Model Intercomparison Project (HighResMIP). Geoscientific Model Development, 2020, 13, 5485-5506.	1.3	29
142	Diurnal cycle of air pollution in the Kathmandu Valley, Nepal: 2. Modeling results. Journal of Geophysical Research, 2009, 114, .	3.3	28
143	Rotational aspects of stratified gap flows and shallow fÃ¶hn. Quarterly Journal of the Royal Meteorological Society, 2001, 127, 161-187.	1.0	27
144	Impact of Greenland's topographic height on precipitation and snow accumulation in idealized simulations. Journal of Geophysical Research, 2012, 117, .	3.3	27

#	Article	IF	Citations
145	Simulation of dimming and brightening in Europe from 1958 to 2001 using a regional climate model. Journal of Geophysical Research, 2011, 116, .	3.3	26
146	Quasi-geostrophic stratified flow over isolated finite amplitude topography. Dynamics of Atmospheres and Oceans, 1988, 11, 287-306.	0.7	25
147	Intercomparison of aerosol climatologies for use in a regional climate model over Europe. Geophysical Research Letters, 2011, 38, .	1.5	25
148	Extreme Subâ€Hourly Precipitation Intensities Scale Close to the Clausiusâ€Clapeyron Rate Over Europe. Geophysical Research Letters, 2021, 48, e2020GL089506.	1.5	25
149	Flux of Potential Vorticity Substance: A Simple Derivation and a Uniqueness Property. Journals of the Atmospheric Sciences, 1993, 50, 1834-1836.	0.6	24
150	On the relationship between the Indian summer monsoon and river flow in the Aral Sea basin. Geophysical Research Letters, 2007, 34, .	1.5	24
151	Analysis of seasonal terrestrial water storage variations in regional climate simulations over Europe. Journal of Geophysical Research, 2007, 112, .	3.3	24
152	Diurnal equilibrium convection and land surfaceâ€"atmosphere interactions in an idealized cloudâ€resolving model. Quarterly Journal of the Royal Meteorological Society, 2012, 138, 1526-1539.	1.0	24
153	Bulk and structural convergence at convectionâ€resolving scales in realâ€case simulations of summertime moist convection over land. Quarterly Journal of the Royal Meteorological Society, 2019, 145, 1427-1443.	1.0	24
154	Projections of Alpine Snow-Cover in a High-Resolution Climate Simulation. Atmosphere, 2019, 10, 463.	1.0	24
155	Evaluation of convection-resolving models using satellite data: The diurnal cycle of summer convection over the Alps. Meteorologische Zeitschrift, 2016, 25, 165-179.	0.5	22
156	Subseasonal hydrometeorological ensemble predictions in small- and medium-sized mountainous catchments: benefits of the NWP approach. Hydrology and Earth System Sciences, 2019, 23, 493-513.	1.9	22
157	Climate change in Switzerland: a review of physical, institutional, and political aspects. Wiley Interdisciplinary Reviews: Climate Change, 2014, 5, 461-481.	3.6	21
158	The wake south of the Alps: Dynamics and structure of the lee-side flow and secondary potential vorticity banners. Quarterly Journal of the Royal Meteorological Society, 2004, 130, 1275-1303.	1.0	20
159	Dynamics of Orographically Triggered Banded Convection in Sheared Moist Orographic Flows. Journals of the Atmospheric Sciences, 2007, 64, 3542-3561.	0.6	20
160	Impact of Scale and Aggregation on the Terrestrial Water Exchange: Integrating Land Surface Models and RhÃ´ne Catchment Observations. Journal of Hydrometeorology, 2007, 8, 1002-1015.	0.7	19
161	CH2018 â€" National climate scenarios for Switzerland: How to construct consistent multi-model projections from ensembles of opportunity. Climate Services, 2020, 20, 100196.	1.0	19
162	Global precipitation response to changing forcings since 1870. Atmospheric Chemistry and Physics, 2011, 11, 9961-9970.	1.9	18

#	ARTICLE	IF	CITATIONS
163	Mesoscale Impacts of Explicit Numerical Diffusion in a Convection-Permitting Model. Monthly Weather Review, 2012, 140, 226-244.	0.5	18
164	Mesoscale mountains and the larger-scale atmospheric dynamics: A review. International Geophysics, 2002, 83, 29-42.	0.6	17
165	The resolution dependence of cloud effects and shipâ€induced aerosolâ€cloud interactions in marine stratocumulus. Journal of Geophysical Research D: Atmospheres, 2016, 121, 4810-4829.	1.2	17
166	Convergence behavior of idealized convection-resolving simulations of summertime deep moist convection over land. Climate Dynamics, 2020, 55, 215-234.	1.7	17
167	A Bayesian Hierarchical Model for Heterogeneous RCMâ€“GCM Multimodel Ensembles*. Journal of Climate, 2015, 28, 6249-6266.	1.2	16
168	The sensitivity of Alpine summer convection to surrogate climate change: an intercomparison between convection-parameterizing and convection-resolving models. Atmospheric Chemistry and Physics, 2018, 18, 5253-5264.	1.9	15
169	Model intercomparison of COSMO 5.0 and IFS 45r1 at kilometer-scale grid spacing. Geoscientific Model Development, 2021, 14, 4617-4639.	1.3	15
170	Attribution of precipitation to cyclones and fronts over Europe in a kilometer-scale regional climate simulation. Weather and Climate Dynamics, 2020, 1, 675-699.	1.2	15
171	An Unsung Mechanism for Frontogenesis and Cyclogenesis. Journals of the Atmospheric Sciences, 1989, 46, 3664-3672.	0.6	13
172	Quasi-geostrophic Lee Cyclogenesis. Journals of the Atmospheric Sciences, 1990, 47, 3044-3066.	0.6	13
173	The Interannual Variability as a Test Ground for Regional Climate Simulations over Japan. Journal of the Meteorological Society of Japan, 1999, 77, 649-672.	0.7	13
174	Real-case simulations of aerosolâ€“cloud interactions in ship tracks over the Bay of Biscay. Atmospheric Chemistry and Physics, 2015, 15, 2185-2201.	1.9	13
175	A Case Study in Modeling Low-Lying Inversions and Stratocumulus Cloud Cover in the Bay of Biscay. Weather and Forecasting, 2014, 29, 289-304.	0.5	12
176	Enhanced Central European summer precipitation in the late 19th century: a link to the Tropics. Quarterly Journal of the Royal Meteorological Society, 2014, 140, 111-123.	1.0	12
177	The Influence of the Resolution of Orography on the Simulation of Orographic Moist Convection. Monthly Weather Review, 2020, 148, 2391-2410.	0.5	12
178	Climate Scenarios for Switzerland CH2018 â€“ Approach and Implications. Climate Services, 2022, 26, 100288.	1.0	12
179	The influence of vegetation on the summertime evolution of European soil moisture. Physics and Chemistry of the Earth, 1999, 24, 609-614.	0.3	10
180	A new diagram of the global energy balance. AIP Conference Proceedings, 2013, , .	0.3	9

#	Article	IF	Citations
181	Impact of topography on the diurnal cycle of summertime moist convection in idealized simulations. Meteorologische Zeitschrift, 2016, 25, 181-194.	0.5	9
182	Inter-model Variability in Convection-Resolving Simulations of Subtropical Marine Low Clouds. Journal of the Meteorological Society of Japan, 2021, 99, 1271-1295.	0.7	8
183	Sequential Factor Separation for the Analysis of Numerical Model Simulations. Journals of the Atmospheric Sciences, 2017, 74, 1471-1484.	0.6	7
184	Extraction and Visual Analysis of Potential Vorticity Banners around the Alps. IEEE Transactions on Visualization and Computer Graphics, 2019, 26, 1-1.	2.9	7
185	Mountain Volume Control on Deep-Convective Rain Amount during Episodes of Weak Synoptic Forcing. Journals of the Atmospheric Sciences, 2019, 76, 605-626.	0.6	7
186	Diabatic modification of airflow over a mesoscale orographic ridge: A model study of the coupled response. Quarterly Journal of the Royal Meteorological Society, 1986, 112, 711-730.	1.0	6
187	Interannual Covariance between Japan Summer Precipitation and Western North Pacific SST. Journal of the Meteorological Society of Japan, 2003, 81, 1435-1456.	0.7	6
188	Editorial: â€œMAP Findingsâ€• Quarterly Journal of the Royal Meteorological Society, 2007, 133, 809-810.	1.0	5
189	The Global Energy Balance Archive (GEBA): A database for the worldwide measured surface energy fluxes. AIP Conference Proceedings, 2017, , .	0.3	5
190	A Numerical Analysis of Six Physicsâ€Dynamics Coupling Schemes for Atmospheric Models. Journal of Advances in Modeling Earth Systems, 2021, 13, e2020MS002377.	1.3	5
191	Barotropic Instability of a Cyclone Core at Kilometerâ€Scale Resolution. Journal of Advances in Modeling Earth Systems, 2019, 11, 3390-3402.	1.3	4
192	The role of soil states in medium-range weather predictability. Nonlinear Processes in Geophysics, 2001, 8, 373-386.	0.6	3
193	On Potential Vorticity Flux Vectors. Journals of the Atmospheric Sciences, 2003, 60, 2917-2921.	0.6	3
194	New estimates of the Earth radiation budget under cloud-free conditions and cloud radiative effects. AIP Conference Proceedings, 2017, , .	0.3	3
195	Orographic Precipitation and Climate Change. Advances in Global Change Research, 2005, , 255-266.	1.6	3
196	Climate variability â€" observations, reconstructions, and model simulations for the Atlantic-European and Alpine region from 1500â€"2100 AD. , 2006, , 9-29.		3
197	Future summer warming pattern under climate change is affected by lapse-rate changes. Weather and Climate Dynamics, 2021, 2, 1093-1110.	1.2	3
198	High-Performance Modelling for the Mesoscale Alpine Programme (MAP) Field Experiment. , 2002, , 301-312.		2

#	Article	IF	Citations
199	MOUNTAIN METEOROLOGY | Orographic Effects. , 2015, , 103-113.		2
200	An ensemble-based statistical methodology to detect differences in weather and climate model executables. Geoscientific Model Development, 2022, 15, 3183-3203.	1.3	2
201	Comments on ?A solenoid-mass continuity invariance criterion related to the potential vorticity conservation? by F. Herbert and H. Pichler. Meteorology and Atmospheric Physics, 1996, 59, 257-258.	0.9	1
202	OROGRAPHIC EFFECTS | Lee Cyclogenesis. , 2003, , 1602-1614.		1