Heini Wernli

List of Publications by Citations

238 papers	12,256 citations	60 h-index	102 g-index
326 ext. papers	13,884 ext. citations	4.9 avg, IF	6.68 L-index

#	Paper	IF	Citations
238	A Lagrangian-based analysis of extratropical cyclones. I: The method and some applications. *Quarterly Journal of the Royal Meteorological Society*, **1997**, 123, 467-489	6.4	459
237	Stratosphere-troposphere exchange: A review, and what we have learned from STACCATO. *Journal of Geophysical Research*, **2003**, 108,		333
236	IMILAST: A Community Effort to Intercompare Extratropical Cyclone Detection and Tracking Algorithms. *Bulletin of the American Meteorological Society*, **2013**, 94, 529-547	6.1	308
235	Surface Cyclones in the ERA-40 Dataset (1958–2001). Part I: Novel Identification Method and Global Climatology. *Journals of the Atmospheric Sciences*, **2006**, 63, 2486-2507	2.1	298
234	HyMeX: A 10-Year Multidisciplinary Program on the Mediterranean Water Cycle. *Bulletin of the American Meteorological Society*, **2014**, 95, 1063-1082	6.1	254
233	Aerosol- and updraft-limited regimes of cloud droplet formation: influence of particle number, size and hygroscopicity on the activation of cloud condensation nuclei (CCN). *Atmospheric Chemistry and Physics*, **2009**, 9, 7067-7080	6.8	241
232	SAL—A Novel Quality Measure for the Verification of Quantitative Precipitation Forecasts. *Monthly Weather Review*, **2008**, 136, 4470-4487	2.4	233
231	A 15-Year Climatology of Warm Conveyor Belts. *Journal of Climate*, **2004**, 17, 218-237	4.4	223
230	Interannual variability of Greenland winter precipitation sources: Lagrangian moisture diagnostic and North Atlantic Oscillation influence. *Journal of Geophysical Research*, **2008**, 113,		202
229	Quantifying the Relevance of Cyclones for Precipitation Extremes. *Journal of Climate*, **2012**, 25, 6770-6780	4.4	197
228	The LAGRANTO Lagrangian analysis tool – version 2.0. *Geoscientific Model Development*, **2015**, 8, 2569-2586	3.3	189
227	A northern hemispheric climatology of cross-tropopause exchange for the ERA15 time period (1979–1993). *Journal of Geophysical Research*, **2003**, 108,		184
226	. *Tellus, Series B: Chemical and Physical Meteorology*, **2003**, 55, 953-965	3.3	181
225	Dynamical aspects of the life cycle of the winter storm 'Lothar' (24–26 December 1999). *Quarterly Journal of the Royal Meteorological Society*, **2002**, 128, 405-429	6.4	173
224	Warm Conveyor Belts in the ERA-Interim Dataset (1979–2010). Part I: Climatology and Potential Vorticity Evolution. *Journal of Climate*, **2014**, 27, 3-26	4.4	170
223	Quantifying the relevance of atmospheric blocking for co-located temperature extremes in the Northern Hemisphere on (sub-)daily time scales. *Geophysical Research Letters*, **2012**, 39, n/a-n/a	4.9	168
222	A global climatology of stratosphere–troposphere exchange using the ERA-Interim data set from 1979 to 2011. *Atmospheric Chemistry and Physics*, **2014**, 14, 913-937	6.8	166

221	A Lagrangian Climatology of Tropical Moisture Exports to the Northern Hemispheric Extratropics. *Journal of Climate*, **2010**, 23, 987-1003	4.4	164
220	Northern Hemisphere Extratropical Cyclones: A Comparison of Detection and Tracking Methods and Different Reanalyses. *Monthly Weather Review*, **2008**, 136, 880-897	2.4	163
219	Tropical troposphere-to-stratosphere transport inferred from trajectory calculations. *Journal of Geophysical Research*, **2004**, 109, n/a-n/a		162
218	Heavy precipitation on the alpine southside: An upper-level precursor. *Geophysical Research Letters*, **1998**, 25, 1435-1438	4.9	161
217	Identification and ERA-15 Climatology of Potential Vorticity Streamers and Cutoffs near the Extratropical Tropopause. *Journals of the Atmospheric Sciences*, **2007**, 64, 1569-1586	2.1	157
216	A Lagrangian-based analysis of extratropical cyclones. II: A detailed case-study. *Quarterly Journal of the Royal Meteorological Society*, **1997**, 123, 1677-1706	6.4	156
215	The key role of diabatic processes in modifying the upper-tropospheric wave guide: a North Atlantic case-study. *Quarterly Journal of the Royal Meteorological Society*, **2011**, 137, 2174-2193	6.4	153
214	The Convective and Orographically-induced Precipitation Study (COPS): the scientific strategy, the field phase, and research highlights. *Quarterly Journal of the Royal Meteorological Society*, **2011**, 137, 3-30	6.4	149
213	Balancing Europe's wind power output through spatial deployment informed by weather regimes. *Nature Climate Change*, **2017**, 7, 557-562	21.4	145
212	Tropopause folds and cross-tropopause exchange: A global investigation based upon ECMWF analyses for the time period March 2000 to February 2001. *Journal of Geophysical Research*, **2003**, 108,		132
211	Seasonality and extent of extratropical TST derived from in-situ CO measurements during SPURT. *Atmospheric Chemistry and Physics*, **2004**, 4, 1427-1442	6.8	128
210	Warm Conveyor Belts in the ERA-Interim Dataset (1979–2010). Part II: Moisture Origin and Relevance for Precipitation. *Journal of Climate*, **2014**, 27, 27-40	4.4	125
209	Importance of latent heat release in ascending air streams for atmospheric blocking. *Nature Geoscience*, **2015**, 8, 610-614	18.3	123
208	A Lagrangian 1-year climatology of (deep) cross-tropopause exchange in the extratropical Northern Hemisphere. *Journal of Geophysical Research*, **2002**, 107, ACL 13-1		120
207	An event-based jet-stream climatology and typology. *International Journal of Climatology*, **2006**, 26, 283-301	3.9	117
206	Deuterium excess as a proxy for continental moisture recycling and plant transpiration. *Atmospheric Chemistry and Physics*, **2014**, 14, 4029-4054	6.8	112
205	A New Perspective of Stratosphere–Troposphere Exchange. *Bulletin of the American Meteorological Society*, **2003**, 84, 1565-1574	6.1	110
204	The Palette of Fronts and Cyclones within a Baroclinic Wave Development. *Journals of the Atmospheric Sciences*, **1991**, 48, 1666-1689	2.1	107

203	Air parcel trajectory analysis of stable isotopes in water vapor in the eastern Mediterranean. *Journal of Geophysical Research*, **2008**, 113,		104
202	Strong influence of lowermost stratospheric ozone on lower tropospheric background ozone changes over Europe. *Geophysical Research Letters*, **2007**, 34,	4.9	102
201	An intercomparison of results from three trajectory models. *Meteorological Applications*, **2001**, 8, 127-135	2.1	101
200	Interannual variability of Greenland winter precipitation sources: 2. Effects of North Atlantic Oscillation variability on stable isotopes in precipitation. *Journal of Geophysical Research*, **2008**, 113,		99
199	Influence of microphysical processes on the potential vorticity development in a warm conveyor belt: a case-study with the limited-area model COSMO. *Quarterly Journal of the Royal Meteorological Society*, **2012**, 138, 407-418	6.4	98
198	Observations of meteoric material and implications for aerosol nucleation in the winter Arctic lower stratosphere derived from in situ particle measurements. *Atmospheric Chemistry and Physics*, **2005**, 5, 3053-3069	6.8	98
197	The role of upper-level dynamics and surface processes for the Pakistan flood of July 2010. *Quarterly Journal of the Royal Meteorological Society*, **2013**, 139, 1780-1797	6.4	93
196	Measuring variations of ¹⁸O and ²H in atmospheric water vapour using two commercial laser-based spectrometers: an instrument characterisation study. *Atmospheric Measurement Techniques*, **2012**, 5, 1491-1511	4	91
195	Atmospheric processes triggering the central European floods in June 2013. *Natural Hazards and Earth System Sciences*, **2014**, 14, 1691-1702	3.9	88
194	Atmospheric Rivers Emerge as a Global Science and Applications Focus. *Bulletin of the American Meteorological Society*, **2017**, 98, 1969-1973	6.1	78
193	ML-CIRRUS: The Airborne Experiment on Natural Cirrus and Contrail Cirrus with the High-Altitude Long-Range Research Aircraft HALO. *Bulletin of the American Meteorological Society*, **2017**, 98, 271-288	6.1	77
192	The North Atlantic Waveguide and Downstream Impact Experiment. *Bulletin of the American Meteorological Society*, **2018**, 99, 1607-1637	6.1	77
191	Influence of Upstream Diabatic Heating upon an Alpine Event of Heavy Precipitation. *Monthly Weather Review*, **2001**, 129, 2822-2828	2.4	76
190	Global Climatologies of Eulerian and Lagrangian Flow Features based on ERA-Interim. *Bulletin of the American Meteorological Society*, **2017**, 98, 1739-1748	6.1	73
189	Highly resolved observations of trace gases in the lowermost stratosphere and upper troposphere from the Spurt project: an overview. *Atmospheric Chemistry and Physics*, **2006**, 6, 283-301	6.8	73
188	A PV Perspective on the Vertical Structure of Mature Midlatitude Cyclones in the Northern Hemisphere. *Journals of the Atmospheric Sciences*, **2012**, 69, 725-740	2.1	72
187	Stratosphere–Troposphere Exchange and Its Relation to Potential Vorticity Streamers and Cutoffs near the Extratropical Tropopause. *Journals of the Atmospheric Sciences*, **2007**, 64, 1587-1602	2.1	71
186	A Global Climatology of Tropical Moisture Exports. *Journal of Climate*, **2013**, 26, 3031-3045	4.4	69

185	Are Greenhouse Gas Signals of Northern Hemisphere winter extra-tropical cyclone activity dependent on the identification and tracking algorithm?. *Meteorologische Zeitschrift*, **2013**, 22, 61-68	3.1	67
184	The importance of stratospheric□tropospheric transport in affecting surface ozone concentrations in the western and northern tier of the United States. *Atmospheric Environment*, **2011**, 45, 4845-4857	5.3	67
183	Large-scale wind and precipitation extremes in the Mediterranean: a climatological analysis for 1979□2012. *Quarterly Journal of the Royal Meteorological Society*, **2015**, 141, 2404-2417	6.4	64
182	Warm Conveyor Belts in Idealized Moist Baroclinic Wave Simulations*. *Journals of the Atmospheric Sciences*, **2013**, 70, 627-652	2.1	62
181	A Lagrangian investigation of hot and cold temperature extremes in Europe. *Quarterly Journal of the Royal Meteorological Society*, **2015**, 141, 98-108	6.4	62
180	Tropopause folds in ERA-Interim: Global climatology and relation to extreme weather events. *Journal of Geophysical Research D: Atmospheres*, **2015**, 120, 4860-4877	4.4	61
179	Sources of water vapour contributing to the Elbe flood in August 2002□A tagging study in a mesoscale model. *Quarterly Journal of the Royal Meteorological Society*, **2009**, 135, 205-223	6.4	61
178	Role of polar anticyclones and mid-latitude cyclones for Arctic summertime sea-ice melting. *Nature Geoscience*, **2018**, 11, 108-113	18.3	58
177	The isotopic composition of precipitation from a winter storm □a case study with the limited-area model COSMO_{iso}. *Atmospheric Chemistry and Physics*, **2012**, 12, 1629-1648	6.8	58
176	Tracing troposphere-to-stratosphere transport above a mid-latitude deep convective system. *Atmospheric Chemistry and Physics*, **2004**, 4, 741-756	6.8	58
175	The Milan photooxidant plume. *Journal of Geophysical Research*, **1997**, 102, 23375-23388		57
174	Growth and Decay of an Extra-Tropical Cyclone□s PV-Tower. *Meteorology and Atmospheric Physics*, **2000**, 73, 139-156	2	57
173	Climate impacts of European-scale anthropogenic vegetation changes: A sensitivity study using a regional climate model. *Journal of Geophysical Research*, **2001**, 106, 7817-7835		57
172	A Climatology of Cold Air Outbreaks and Their Impact on Air□Sea Heat Fluxes in the High-Latitude South Pacific. *Journal of Climate*, **2015**, 28, 342-364	4.4	56
171	The transport history of two Saharan dust events archived in an Alpine ice core. *Atmospheric Chemistry and Physics*, **2006**, 6, 667-688	6.8	56
170	The Role of Warm Conveyor Belts for the Intensification of Extratropical Cyclones in Northern Hemisphere Winter. *Journals of the Atmospheric Sciences*, **2016**, 73, 3997-4020	2.1	56
169	Estimates of background surface ozone concentrations in the United States based on model-derived source apportionment. *Atmospheric Environment*, **2014**, 84, 275-288	5.3	55
168	Impact of North Atlantic evaporation hot spots on southern Alpine heavy precipitation events. *Quarterly Journal of the Royal Meteorological Society*, **2012**, 138, 1245-1258	6.4	55

167	Forecasted deep stratospheric intrusions over Central Europe: case studies and climatologies. *Atmospheric Chemistry and Physics*, **2010**, 10, 499-524	6.8	55
166	The dynamical structure of intense Mediterranean cyclones. *Climate Dynamics*, **2015**, 44, 2411-2427	4.2	54
165	A case study on the formation and evolution of ice supersaturation in the vicinity of a warm conveyor belt's outflow region. *Atmospheric Chemistry and Physics*, **2005**, 5, 973-987	6.8	54
164	Identification and climatology of cut-off lows near the tropopause. *Annals of the New York Academy of Sciences*, **2008**, 1146, 256-90	6.5	52
163	A novel model to predict the physical state of atmospheric H₂SO₄/NH₃/H₂O aerosol particles. *Atmospheric Chemistry and Physics*, **2003**, 3, 909-924	6.8	52
162	The Role of Extratropical Cyclones and Fronts for Southern Ocean Freshwater Fluxes. *Journal of Climate*, **2014**, 27, 6205-6224	4.4	51
161	Stratosphere-troposphere exchange: A model and method intercomparison. *Journal of Geophysical Research*, **2003**, 108,		49
160	Nitrogen oxides and ozone in the tropopause region of the northern hemisphere: Measurements from commercial aircraft in 1995/1996 and 1997. *Journal of Geophysical Research*, **2001**, 106, 27673-27699		49
159	How important is intensified evaporation for Mediterranean precipitation extremes?. *Journal of Geophysical Research D: Atmospheres*, **2014**, 119, 5240-5256	4.4	47
158	Forecast, observation and modelling of a deep stratospheric intrusion event over Europe. *Atmospheric Chemistry and Physics*, **2003**, 3, 763-777	6.8	47
157	Quantifying the importance of stratospheric-tropospheric transport on surface ozone concentrations at high- and low-elevation monitoring sites in the United States. *Atmospheric Environment*, **2012**, 62, 646-656	5.3	46
156	Seasonal cycles and variability of O₃ and H₂O in the UT/LMS during SPURT. *Atmospheric Chemistry and Physics*, **2006**, 6, 109-125	6.8	46
155	Detailed modeling of mountain wave PSCs. *Atmospheric Chemistry and Physics*, **2003**, 3, 697-712	6.8	46
154	Spatial Forecast Verification Methods Intercomparison Project: Application of the SAL Technique. *Weather and Forecasting*, **2009**, 24, 1472-1484	2.1	45
153	On the linkage between the Asian summer monsoon and tropopause fold activity over the eastern Mediterranean and the Middle East. *Journal of Geophysical Research D: Atmospheres*, **2014**, 119, 3202-3221	4.4	44
152	Isotope meteorology of cold front passages: A case study combining observations and modeling. *Geophysical Research Letters*, **2015**, 42, 5652-5660	4.9	44
151	Dehydration potential of ultrathin clouds at the tropical tropopause. *Geophysical Research Letters*, **2003**, 30,	4.9	44
150	Structure and evolution of an isolated semi-geostrophic cyclone. *Quarterly Journal of the Royal Meteorological Society*, **1993**, 119, 57-90	6.4	44

149	Comparison of Eulerian and Lagrangian moisture source diagnostics the flood event in eastern Europe in May 2010. *Atmospheric Chemistry and Physics*, **2014**, 14, 6605-6619	6.8	42
148	Enhanced ozone over western North America from biomass burning in Eurasia during April 2008 as seen in surface and profile observations. *Atmospheric Environment*, **2010**, 44, 4497-4509	5.3	42
147	Kilometer-Scale Climate Models: Prospects and Challenges. *Bulletin of the American Meteorological Society*, **2020**, 101, E567-E587	6.1	40
146	A gridded dataset of hourly precipitation in Germany: Its construction, climatology and application. *Meteorologische Zeitschrift*, **2008**, 17, 719-732	3.1	39
145	A composite study on the structure and formation of ozone miniholes and minihighs over central Europe. *Geophysical Research Letters*, **2005**, 32, n/a-n/a	4.9	38
144	A Planetary-Scale to Mesoscale Perspective of the Life Cycles of Extratropical Cyclones: The Bridge between Theory and Observations **1999**, 139-185		38
143	Exceptional Air Mass Transport and Dynamical Drivers of an Extreme Wintertime Arctic Warm Event. *Geophysical Research Letters*, **2017**, 44, 12,028-12,036	4.9	37
142	A complex case study of down to the surface intrusions of persistent stratospheric air over the Eastern Mediterranean. *Atmospheric Environment*, **2006**, 40, 4113-4125	5.3	37
141	The dichotomous structure of the warm conveyor belt. *Quarterly Journal of the Royal Meteorological Society*, **2014**, 140, 1809-1824	6.4	36
140	Classification of precipitation events with a convective response timescale and their forecasting characteristics. *Geophysical Research Letters*, **2011**, 38, n/a-n/a	4.9	36
139	The Effect of Barotropic Shear on Upper-Level Induced Cyclogenesis: Semigeostrophic and Primitive Equation Numerical Simulations. *Journals of the Atmospheric Sciences*, **1998**, 55, 2080-2094	2.1	36
138	Overview of the Antarctic Circumnavigation Expedition: Study of Preindustrial-like Aerosols and Their Climate Effects (ACE-SPACE). *Bulletin of the American Meteorological Society*, **2019**, 100, 2260-2283	6.1	35
137	The stable isotopic composition of water vapour above Corsica during the HyMeX SOP1 campaign: insight into vertical mixing processes from lower-tropospheric survey flights. *Atmospheric Chemistry and Physics*, **2017**, 17, 6125-6151	6.8	35
136	An online trajectory module (version 1.0) for the nonhydrostatic numerical weather prediction model COSMO. *Geoscientific Model Development*, **2013**, 6, 1989-2004	6.3	35
135	Lagrangian simulations of stable isotopes in water vapor: An evaluation of nonequilibrium fractionation in the Craig-Gordon model. *Journal of Geophysical Research*, **2009**, 114,		34
134	Observations of stratosphere-to-troposphere transport events over the eastern Mediterranean using a ground-based lidar system. *Journal of Geophysical Research*, **2003**, 108,		34
133	Identification of glacial meltwater runoff in a karstic environment and its implication for present and future water availability. *Hydrology and Earth System Sciences*, **2013**, 17, 3261-3277	5.5	33
132	Transport timescales and tracer properties in the extratropical UTLS. *Atmospheric Chemistry and Physics*, **2010**, 10, 7929-7944	6.8	32

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129	The Linkage between the Warm and the Cold Conveyor Belts in an Idealized Extratropical Cyclone*. *Journals of the Atmospheric Sciences*, **2014**, 71, 1443-1459	2.1	31
128	Measurements of nitrogen oxides at the tropopause: Attribution to convection and correlation with lightning. *Journal of Geophysical Research*, **2000**, 105, 3679-3700		31
127	A trajectory-based classification of ERA-Interim ice clouds in the region of the North Atlantic storm track. *Geophysical Research Letters*, **2016**, 43, 6657-6664	4.9	30
126	Life Cycle Study of a Diabatic Rossby Wave as a Precursor to Rapid Cyclogenesis in the North Atlantic Dynamics and Forecast Performance. *Monthly Weather Review*, **2011**, 139, 1861-1878	2.4	29
125	Airborne in-situ measurements of vertical, seasonal and latitudinal distributions of carbon dioxide over Europe. *Atmospheric Chemistry and Physics*, **2008**, 8, 6395-6403	6.8	29
124	The influence of the 1997 99 El Ni Southern Oscillation on extratropical baroclinic life cycles over the eastern North Pacific. *Quarterly Journal of the Royal Meteorological Society*, **2001**, 127, 331-342	6.4	29
123	Verification of precipitation from regional climate simulations and remote-sensing observations with respect to ground-based observations in the upper Danube catchment. *Meteorologische Zeitschrift*, **2007**, 16, 275-293	3.1	28
122	A new interpretative framework for below-cloud effects on stable water isotopes in vapour and rain. *Atmospheric Chemistry and Physics*, **2019**, 19, 747-765	6.8	27
121	A 10-yr Climatology of Diabatic Rossby Waves in the Northern Hemisphere. *Monthly Weather Review*, **2013**, 141, 1139-1154	2.4	27
120	Midstratospheric ozone variability over Bern related to planetary wave activity during the winters 1994 1995 to 1998 1999. *Journal of Geophysical Research*, **2001**, 106, 7903-7916		27
119	Convective activity in an extratropical cyclone and its warm conveyor belt a case-study combining observations and a convection-permitting model simulation. *Quarterly Journal of the Royal Meteorological Society*, **2019**, 145, 1406-1426	6.4	26
118	On the origin of 129I in rain water near Z ich. *Radiochimica Acta*, **2001**, 89, 815-822	1.9	26
117	The transatlantic dust transport from North Africa to the Americas Its characteristics and source regions. *Journal of Geophysical Research D: Atmospheres*, **2015**, 120, 11,231-11,252	4.4	25
116	Climatology of potential vorticity streamers and associated isentropic transport pathways across PV gradient barriers. *Journal of Geophysical Research D: Atmospheres*, **2015**, 120, 3802-3821	4.4	25
115	The Mineral Dust Cycle in EMAC 2.40: sensitivity to the spectral resolution and the dust emission scheme. *Atmospheric Chemistry and Physics*, **2012**, 12, 1611-1627	6.8	25
114	Large-scale wind and precipitation extremes in the Mediterranean: dynamical aspects of five selected cyclone events. *Quarterly Journal of the Royal Meteorological Society*, **2016**, 142, 3097-3114	6.4	25

113	Northern Hemisphere Rossby Wave Initiation Events on the Extratropical Jet: A Climatological Analysis. *Journal of Climate*, **2018**, 31, 743-760	4.4	25
112	An evaluation of the convection-permitting ensemble COSMO-E for three contrasting precipitation events in Switzerland. *Quarterly Journal of the Royal Meteorological Society*, **2018**, 144, 744-764	6.4	25
111	Large NAT particle formation by mother clouds: Analysis of SOLVE/THESEO-2000 observations. *Geophysical Research Letters*, **2002**, 29, 52-1	4.9	24
110	When during Their Life Cycle Are Extratropical Cyclones Attended by Fronts?. *Bulletin of the American Meteorological Society*, **2018**, 99, 149-165	6.1	24
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108	Microphysical and radiative changes in cirrus clouds by geoengineering the stratosphere. *Journal of Geophysical Research D: Atmospheres*, **2013**, 118, 4533-4548	4.4	23
107	Multi-model simulations of a convective situation in low-mountain terrain in central Europe. *Meteorology and Atmospheric Physics*, **2009**, 103, 95-103	2	23
106	The general observation period 2007 within the priority program on quantitative precipitation forecasting: Concept and first results. *Meteorologische Zeitschrift*, **2008**, 17, 849-866	3.1	23
105	Ultrathin Tropical Tropopause Clouds (UTTCs): II. Stabilization mechanisms. *Atmospheric Chemistry and Physics*, **2003**, 3, 1093-1100	6.8	23
104	Objective classification of extratropical cyclogenesis. *Quarterly Journal of the Royal Meteorological Society*, **2017**, 143, 1047-1061	6.4	21
103	Increase in the number of extremely strong fronts over Europe? A study based on ERA-Interim reanalysis (1979–2014). *Geophysical Research Letters*, **2017**, 44, 553-561	4.9	21
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101	The influence of the 1997-99 El Nino Southern Oscillation on extratropical baroclinic life cycles over the eastern North Pacific. *Quarterly Journal of the Royal Meteorological Society*, **2001**, 127, 331-342	6.4	21
100	Flow-Dependent Reliability: A Path to More Skillful Ensemble Forecasts. *Bulletin of the American Meteorological Society*, **2018**, 99, 1015-1026	6.1	21
99	Marine Primary Productivity as a Potential Indirect Source of Selenium and Other Trace Elements in Atmospheric Deposition. *Environmental Science & Technology*, **2017**, 51, 108-118	10.3	20
98	Does the lower stratosphere provide predictability for month-ahead wind electricity generation in Europe?. *Quarterly Journal of the Royal Meteorological Society*, **2017**, 143, 3025-3036	6.4	20
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94	Planning aircraft measurements within a warm conveyor belt. *Weather*, **2014**, 69, 161-166	0.9	18
93	A bulk parametrization of melting snowflakes with explicit liquid water fraction for the COSMO model. *Geoscientific Model Development*, **2013**, 6, 1925-1939	6.3	18
92	Synoptic tracer gradients in the upper troposphere over central Canada during the Stratosphere-Troposphere Experiments by Aircraft Measurements 1998 summer campaign. *Journal of Geophysical Research*, **2002**, 107, ACH 5-1		18
91	3-D model simulations of dynamical and microphysical interactions in pyroconvective clouds under idealized conditions. *Atmospheric Chemistry and Physics*, **2014**, 14, 7573-7583	6.8	17
90	Analysis of a jet stream induced gravity wave associated with an observed ice cloud over Greenland. *Atmospheric Chemistry and Physics*, **2004**, 4, 1183-1200	6.8	17
89	Potential vorticity structure of embedded convection in a warm conveyor belt and its relevance for large-scale dynamics. *Weather and Climate Dynamics*, **2020**, 1, 127-153	3.3	17
88	On the Co-Occurrence of Warm Conveyor Belt Outflows and PV Streamers*. *Journals of the Atmospheric Sciences*, **2014**, 71, 3668-3673	2.1	16
87	A Case Study of High-Impact Wet Snowfall in Northwest Germany (25–27 November 2005): Observations, Dynamics, and Forecast Performance. *Weather and Forecasting*, **2012**, 27, 1217-1234	2.1	16
86	THORPEX Research and the Science of Prediction. *Bulletin of the American Meteorological Society*, **2017**, 98, 807-830	6.1	15
85	The Microphysical Building Blocks of Low-Level Potential Vorticity Anomalies in an Idealized Extratropical Cyclone. *Journals of the Atmospheric Sciences*, **2017**, 74, 1403-1416	2.1	15
84	Stratosphere–troposphere exchange (STE) in the vicinity of North Atlantic cyclones. *Atmospheric Chemistry and Physics*, **2015**, 15, 10939-10953	6.8	15
83	A new windstorm proxy from lake sediments: A comparison of geological and meteorological data from western Germany for the period 1965–2001. *Journal of Geophysical Research*, **2009**, 114,		15
82	Modification of Potential Vorticity near the Tropopause by Nonconservative Processes in the ECMWF Model. *Journals of the Atmospheric Sciences*, **2019**, 76, 1709-1726	2.1	14
81	Spatial coherency of extreme weather events in Germany and Switzerland. *International Journal of Climatology*, **2012**, 32, 1863-1874	3.5	14
80	Mesoscale modelling of vertical atmospheric transport in the Alps associated with the advection of a tropopause fold – a winter ozone episode. *Atmospheric Environment*, **1999**, 33, 3613-3626	5.3	14
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78	An algorithm for identifying the initiation of synoptic-scale Rossby waves on potential vorticity waveguides. *Quarterly Journal of the Royal Meteorological Society*, **2016**, 142, 889-900	6.4	14

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