

# Harald Sodemann

## List of Publications by Year in descending order

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Version: 2024-02-01

78  
papers

6,314  
citations

61984

43  
h-index

74163

75  
g-index

111  
all docs

111  
docs citations

111  
times ranked

7251  
citing authors

#	ARTICLE	IF	CITATIONS
1	Numerical methods to identify model uncertainty. , 2021, , 309-329.		0
2	Lagrangian matches between observations from aircraft, lidar and radar in a warm conveyor belt crossing orography. Atmospheric Chemistry and Physics, 2021, 21, 5477-5498.	4.9	3
3	Linking Sub-Tropical Evaporation and Extreme Precipitation Over East Antarctica: An Atmospheric River Case Study. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD033617.	3.3	17
4	Experimental investigation of the stable water isotope distribution in an Alpine lake environment (L-WAIVE). Atmospheric Chemistry and Physics, 2021, 21, 10911-10937.	4.9	7
5	The residence time of water vapour in the atmosphere. Nature Reviews Earth & Environment, 2021, 2, 558-569.	29.7	41
6	High-resolution stable isotope signature of a land-falling atmospheric river in southern Norway. Weather and Climate Dynamics, 2021, 2, 713-737.	3.5	8
7	Abrupt Common Era hydroclimate shifts drive west Greenland ice cap change. Nature Geoscience, 2021, 14, 756-761.	12.9	9
8	On the utility of individual tendency output: Revealing interactions between parameterised processes during a marine cold air outbreak. Weather and Forecasting, 2021, , .	1.4	1
9	Differential absorption lidar for water vapor isotopologues in the 1.98 $\mu\text{m}$ spectral region: sensitivity analysis with respect to regional atmospheric variability. Atmospheric Measurement Techniques, 2021, 14, 6675-6693.	3.1	5
10	Beyond Turnover Time: Constraining the Lifetime Distribution of Water Vapor from Simple and Complex Approaches. Journals of the Atmospheric Sciences, 2020, 77, 413-433.	1.7	25
11	Meridional and vertical variations of the water vapour isotopic composition in the marine boundary layer over the Atlantic and Southern Ocean. Atmospheric Chemistry and Physics, 2020, 20, 5811-5835.	4.9	28
12	Structure, Process, and Mechanism. , 2020, , 15-43.		8
13	Correcting the impact of the isotope composition on the mixing ratio dependency of water vapour isotope measurements with cavity ring-down spectrometers. Atmospheric Measurement Techniques, 2020, 13, 3167-3190.	3.1	21
14	The role of land and ocean evaporation on the variability of precipitation in the Yangtze River valley. Hydrology and Earth System Sciences, 2019, 23, 2525-2540.	4.9	45
15	Assessing the Sampling Quality of a Low-Tech Low-Budget Volume-Based Rainfall Sampler for Stable Isotope Analysis. Frontiers in Earth Science, 2019, 7, .	1.8	7
16	2018 International Atmospheric Rivers Conference: Multi-disciplinary studies and high-impact applications of atmospheric rivers. Atmospheric Science Letters, 2019, 20, e935.	1.9	5
17	Multiscale characteristics of an extreme precipitation event over Nepal. Quarterly Journal of the Royal Meteorological Society, 2019, 145, 179-196.	2.7	9
18	A new interpretative framework for below-cloud effects on stable water isotopes in vapour and rain. Atmospheric Chemistry and Physics, 2019, 19, 747-765.	4.9	66

#	ARTICLE	IF	CITATIONS
19	The Lagrangian particle dispersion model FLEXPART version 10.4. <i>Geoscientific Model Development</i> , 2019, 12, 4955-4997.	3.6	238
20	The Iceland Greenland Seas Project. <i>Bulletin of the American Meteorological Society</i> , 2019, 100, 1795-1817.	3.3	21
21	Temperature signals in tree-ring oxygen isotope series from the northern slope of the Himalaya. <i>Earth and Planetary Science Letters</i> , 2019, 506, 455-465.	4.4	30
22	The North Atlantic Waveguide and Downstream Impact Experiment. <i>Bulletin of the American Meteorological Society</i> , 2018, 99, 1607-1637.	3.3	105
23	Abrupt ice-age shifts in southern westerly winds and Antarctic climate forced from the north. <i>Nature</i> , 2018, 563, 681-685.	27.8	108
24	Characterizing the Local and Intense Water Cycle during a Cold Air Outbreak in the Nordic Seas. <i>Monthly Weather Review</i> , 2018, 146, 3567-3588.	1.4	19
25	Marine Primary Productivity as a Potential Indirect Source of Selenium and Other Trace Elements in Atmospheric Deposition. <i>Environmental Science &amp; Technology</i> , 2017, 51, 108-118.	10.0	31
26	The Impact of Nonequilibrium and Equilibrium Fractionation on Two Different Deuterium Excess Definitions. <i>Journal of Geophysical Research D: Atmospheres</i> , 2017, 122, 12,732.	3.3	27
27	Synoptic Conditions and Moisture Sources Actuating Extreme Precipitation in Nepal. <i>Journal of Geophysical Research D: Atmospheres</i> , 2017, 122, 12,653.	3.3	35
28	The stable isotopic composition of water vapour above Corsica during the HyMeX SOP1 campaign: insight into vertical mixing processes from lower-tropospheric survey flights. <i>Atmospheric Chemistry and Physics</i> , 2017, 17, 6125-6151.	4.9	52
29	High-Latitude Dynamics of Atmosphere-Ocean Interactions. <i>Bulletin of the American Meteorological Society</i> , 2016, 97, ES179-ES182.	3.3	7
30	A revised picture of the atmospheric moisture residence time. <i>Geophysical Research Letters</i> , 2016, 43, 924-933.	4.0	95
31	Isotope meteorology of cold front passages: A case study combining observations and modeling. <i>Geophysical Research Letters</i> , 2015, 42, 5652-5660.	4.0	70
32	Seasonality of westerly moisture transport in the East Asian summer monsoon and its implications for interpreting precipitation $\delta^{18}O$ . <i>Journal of Geophysical Research D: Atmospheres</i> , 2015, 120, 5850-5862.	3.3	95
33	Lagrangian dust model simulations for a case of moist convective dust emission and transport in the western Sahara region during Fennec/LADUNEX. <i>Journal of Geophysical Research D: Atmospheres</i> , 2015, 120, 6117-6144.	3.3	20
34	Advances in understanding mineral dust and boundary layer processes over the Sahara from Fennec aircraft observations. <i>Atmospheric Chemistry and Physics</i> , 2015, 15, 8479-8520.	4.9	57
35	Moisture sources and synoptic to seasonal variability of North Atlantic water vapor isotopic composition. <i>Journal of Geophysical Research D: Atmospheres</i> , 2015, 120, 5757-5774.	3.3	67
36	A Climatology of Cold Air Outbreaks and Their Impact on Air-Sea Heat Fluxes in the High-Latitude South Pacific. <i>Journal of Climate</i> , 2015, 28, 342-364.	3.2	81

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37	North Atlantic storm track changes during the Last Glacial Maximum recorded by Alpine speleothems. <i>Nature Communications</i> , 2015, 6, 6344.	12.8	183
38	The summer 2012 Greenland heat wave: In situ and remote sensing observations of water vapor isotopic composition during an atmospheric river event. <i>Journal of Geophysical Research D: Atmospheres</i> , 2015, 120, 2970-2989.	3.3	78
39	What controls deuterium excess in global precipitation?. <i>Climate of the Past</i> , 2014, 10, 771-781.	3.4	260
40	The Role of Extratropical Cyclones and Fronts for Southern Ocean Freshwater Fluxes. <i>Journal of Climate</i> , 2014, 27, 6205-6224.	3.2	69
41	Planning aircraft measurements within a warm conveyor belt. <i>Weather</i> , 2014, 69, 161-166.	0.7	22
42	How important is intensified evaporation for Mediterranean precipitation extremes?. <i>Journal of Geophysical Research D: Atmospheres</i> , 2014, 119, 5240-5256.	3.3	55
43	The isotopic composition of water vapour and precipitation in Ivittuut, southern Greenland. <i>Atmospheric Chemistry and Physics</i> , 2014, 14, 4419-4439.	4.9	86
44	Comparison of Eulerian and Lagrangian moisture source diagnostics â€” the flood event in eastern Europe in May 2010. <i>Atmospheric Chemistry and Physics</i> , 2014, 14, 6605-6619.	4.9	55
45	Deuterium excess as a proxy for continental moisture recycling and plant transpiration. <i>Atmospheric Chemistry and Physics</i> , 2014, 14, 4029-4054.	4.9	138
46	Snow accumulation and its moisture origin over Dome Argus, Antarctica. <i>Climate Dynamics</i> , 2013, 40, 731-742.	3.8	30
47	Diurnal to interannual rainfall $\delta^{18}\text{O}$ variations in northern Borneo driven by regional hydrology. <i>Earth and Planetary Science Letters</i> , 2013, 369-370, 108-119.	4.4	134
48	Impact of atmospheric transport on the evolution of microphysical and optical properties of Saharan dust. <i>Geophysical Research Letters</i> , 2013, 40, 2433-2438.	4.0	101
49	Moisture Origin and Meridional Transport in Atmospheric Rivers and Their Association with Multiple Cyclones*. <i>Monthly Weather Review</i> , 2013, 141, 2850-2868.	1.4	164
50	Continuous monitoring of summer surface water vapor isotopic composition above the Greenland Ice Sheet. <i>Atmospheric Chemistry and Physics</i> , 2013, 13, 4815-4828.	4.9	155
51	The role of upperâ€”level dynamics and surface processes for the Pakistan flood of July 2010. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2013, 139, 1780-1797.	2.7	118
52	Optical properties of Saharan dust aerosol and contribution from the coarse mode as measured during the Fennec 2011 aircraft campaign. <i>Atmospheric Chemistry and Physics</i> , 2013, 13, 303-325.	4.9	172
53	Measuring variations of $\delta^{18}\text{O}$ and $\delta^2\text{H}$ in atmospheric water vapour using two commercial laser-based spectrometers: an instrument characterisation study. <i>Atmospheric Measurement Techniques</i> , 2012, 5, 1491-1511.	3.1	116
54	Interglacial Hydroclimate in the Tropical West Pacific Through the Late Pleistocene. <i>Science</i> , 2012, 336, 1301-1304.	12.6	79

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55	Development and Disintegration of Maya Political Systems in Response to Climate Change. <i>Science</i> , 2012, 338, 788-791.	12.6	421
56	Deglaciation records of $\delta^{18}O$ -excess in East Antarctica: reliable reconstruction of oceanic normalized relative humidity from coastal sites. <i>Climate of the Past</i> , 2012, 8, 1-16.	3.4	80
57	Impact of North Atlantic evaporation hot spots on southern Alpine heavy precipitation events. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2012, 138, 1245-1258.	2.7	59
58	A comparison of the present and last interglacial periods in six Antarctic ice cores. <i>Climate of the Past</i> , 2011, 7, 397-423.	3.4	131
59	Source identification and airborne chemical characterisation of aerosol pollution from long-range transport over Greenland during POLARCAT summer campaign 2008. <i>Atmospheric Chemistry and Physics</i> , 2011, 11, 10097-10123.	4.9	52
60	Characteristics, sources, and transport of aerosols measured in spring 2008 during the aerosol, radiation, and cloud processes affecting Arctic Climate (ARCPAC) Project. <i>Atmospheric Chemistry and Physics</i> , 2011, 11, 2423-2453.	4.9	259
61	Physical and chemical properties of pollution aerosol particles transported from North America to Greenland as measured during the POLARCAT summer campaign. <i>Atmospheric Chemistry and Physics</i> , 2011, 11, 10947-10963.	4.9	30
62	In-situ observation of Asian pollution transported into the Arctic lowermost stratosphere. <i>Atmospheric Chemistry and Physics</i> , 2011, 11, 10975-10994.	4.9	49
63	Relating tropical ocean clouds to moist processes using water vapor isotope measurements. <i>Atmospheric Chemistry and Physics</i> , 2011, 11, 741-752.	4.9	45
64	Episodes of cross-polar transport in the Arctic troposphere during July 2008 as seen from models, satellite, and aircraft observations. <i>Atmospheric Chemistry and Physics</i> , 2011, 11, 3631-3651.	4.9	47
65	Seasonal and inter-annual variability of the moisture sources for Alpine precipitation during 1995-2002. <i>International Journal of Climatology</i> , 2010, 30, 947-961.	3.5	111
66	Source identification of short-lived air pollutants in the Arctic using statistical analysis of measurement data and particle dispersion model output. <i>Atmospheric Chemistry and Physics</i> , 2010, 10, 669-693.	4.9	218
67	Long-term trends of black carbon and sulphate aerosol in the Arctic: changes in atmospheric transport and source region emissions. <i>Atmospheric Chemistry and Physics</i> , 2010, 10, 9351-9368.	4.9	169
68	An important contribution to springtime Arctic aerosol from biomass burning in Russia. <i>Geophysical Research Letters</i> , 2010, 37, .	4.0	172
69	Sources of water vapour contributing to the Elbe flood in August 2002 - A tagging study in a mesoscale model. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2009, 135, 205-223.	2.7	76
70	Transport of mercury in the Arctic atmosphere: Evidence for a spring-time net sink and summer-time source. <i>Geophysical Research Letters</i> , 2009, 36, .	4.0	62
71	Asymmetries in the moisture origin of Antarctic precipitation. <i>Geophysical Research Letters</i> , 2009, 36, .	4.0	139
72	Interannual variability of Greenland winter precipitation sources: Lagrangian moisture diagnostic and North Atlantic Oscillation influence. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	289

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73	Remote sources of water vapor forming precipitation on the Norwegian west coast at 60°N—a tale of hurricanes and an atmospheric river. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	201
74	Interannual variability of Greenland winter precipitation sources: 2. Effects of North Atlantic Oscillation variability on stable isotopes in precipitation. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	113
75	The transport history of two Saharan dust events archived in an Alpine ice core. <i>Atmospheric Chemistry and Physics</i> , 2006, 6, 667-688.	4.9	72
76	Special characteristics of the temperature structure near the surface. <i>Theoretical and Applied Climatology</i> , 2005, 80, 81-89.	2.8	20
77	Empirical evaluation of an extended similarity theory for the stably stratified atmospheric surface layer. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2004, 130, 2665-2671.	2.7	12
78	A Ship-Based Characterization of Coherent Boundary-Layer Structures Over the Lifecycle of a Marine Cold-Air Outbreak. <i>Boundary-Layer Meteorology</i> , 0, , 1.	2.3	1