

# Kerstin Stebel

## List of Publications by Year in descending order

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Version: 2024-02-01

73  
papers

3,102  
citations

218381

26  
h-index

182168

51  
g-index

105  
all docs

105  
docs citations

105  
times ranked

3757  
citing authors

#	ARTICLE	IF	CITATIONS
1	Arctic smoke “ record high air pollution levels in the European Arctic due to agricultural fires in Eastern Europe in spring 2006. <i>Atmospheric Chemistry and Physics</i> , 2007, 7, 511-534.	1.9	372
2	Determination of time- and height-resolved volcanic ash emissions and their use for quantitative ash dispersion modeling: the 2010 Eyjafjallajökull eruption. <i>Atmospheric Chemistry and Physics</i> , 2011, 11, 4333-4351.	1.9	333
3	Pan-Arctic enhancements of light absorbing aerosol concentrations due to North American boreal forest fires during summer 2004. <i>Journal of Geophysical Research</i> , 2006, 111, .	3.3	205
4	Estimation of the vertical profile of sulfur dioxide injection into the atmosphere by a volcanic eruption using satellite column measurements and inverse transport modeling. <i>Atmospheric Chemistry and Physics</i> , 2008, 8, 3881-3897.	1.9	175
5	Aerosols in polar regions: A historical overview based on optical depth and in situ observations. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	173
6	Development, Production and Evaluation of Aerosol Climate Data Records from European Satellite Observations (Aerosol_cci). <i>Remote Sensing</i> , 2016, 8, 421.	1.8	131
7	Aerosol remote sensing in polar regions. <i>Earth-Science Reviews</i> , 2015, 140, 108-157.	4.0	106
8	Four-dimensional distribution of the 2010 Eyjafjallajökull volcanic cloud over Europe observed by EARLINET. <i>Atmospheric Chemistry and Physics</i> , 2013, 13, 4429-4450.	1.9	95
9	The influence of cruise ship emissions on air pollution in Svalbard “ a harbinger of a more polluted Arctic?. <i>Atmospheric Chemistry and Physics</i> , 2013, 13, 8401-8409.	1.9	94
10	Remote sensing and inverse transport modeling of the Kasatochi eruption sulfur dioxide cloud. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	93
11	Ground-based assessment of the bias and long-term stability of 14 limb and occultation ozone profile data records. <i>Atmospheric Measurement Techniques</i> , 2016, 9, 2497-2534.	1.2	92
12	An intercomparison campaign of ground-based UV-visible measurements of NO <sub>2</sub> , BrO, and OClO slant columns: Methods of analysis and results for NO <sub>2</sub> . <i>Journal of Geophysical Research</i> , 2005, 110, .	3.3	73
13	Influence of planetary waves on noctilucent cloud occurrence over NW Europe. <i>Journal of Geophysical Research</i> , 2003, 108, .	3.3	61
14	A review and framework for the evaluation of pixel-level uncertainty estimates in satellite aerosol remote sensing. <i>Atmospheric Measurement Techniques</i> , 2020, 13, 373-404.	1.2	59
15	Bias determination and precision validation of ozone profiles from MIPAS-Envisat retrieved with the IMK-IAA processor. <i>Atmospheric Chemistry and Physics</i> , 2007, 7, 3639-3662.	1.9	49
16	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.	1.9	47
17	Open fires in Greenland in summer 2017: transport, deposition and radiative effects of BC, OC and BrC emissions. <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 1393-1411.	1.9	46
18	Noctilucent clouds, PMSE and 5-day planetary waves: A case study. <i>Geophysical Research Letters</i> , 2002, 29, 50-1-50-4.	1.5	44

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19	Overview of sun photometer measurements of aerosol properties in Scandinavia and Svalbard. <i>Atmospheric Environment</i> , 2012, 52, 18-28.	1.9	42
20	Intercomparison of SO <sub>2</sub> camera systems for imaging volcanic gas plumes. <i>Journal of Volcanology and Geothermal Research</i> , 2015, 300, 22-36.	0.8	42
21	Regional aerosol optical properties and radiative impact of the extreme smoke event in the European Arctic in spring 2006. <i>Atmospheric Chemistry and Physics</i> , 2007, 7, 5899-5915.	1.9	40
22	Modification of Local Urban Aerosol Properties by Long-Range Transport of Biomass Burning Aerosol. <i>Remote Sensing</i> , 2018, 10, 412.	1.8	37
23	Geophysical validation of SCIAMACHY Limb Ozone Profiles. <i>Atmospheric Chemistry and Physics</i> , 2006, 6, 197-209.	1.9	34
24	Why unprecedented ozone loss in the Arctic in 2011? Is it related to climate change?. <i>Atmospheric Chemistry and Physics</i> , 2013, 13, 5299-5308.	1.9	34
25	A case study of gravity waves in noctilucent clouds. <i>Annales Geophysicae</i> , 2004, 22, 1875-1884.	0.6	32
26	Remote sensing of aerosols in the Arctic for an evaluation of global climate model simulations. <i>Journal of Geophysical Research D: Atmospheres</i> , 2014, 119, 8169-8188.	1.2	31
27	Joint radar/lidar observations of possible aerosol layers in the winter mesosphere. <i>Journal of Atmospheric and Solar-Terrestrial Physics</i> , 2004, 66, 957-970.	0.6	27
28	GOMOS ozone profile validation using ground-based and balloon sonde measurements. <i>Atmospheric Chemistry and Physics</i> , 2010, 10, 10473-10488.	1.9	27
29	Aerosol properties of the Eyjafjallajökull ash derived from sun photometer and satellite observations over the Iberian Peninsula. <i>Atmospheric Environment</i> , 2012, 48, 22-32.	1.9	26
30	The 1997 PMSE season - Its relation to wind, temperature and water vapour. <i>Geophysical Research Letters</i> , 1998, 25, 1867-1870.	1.5	24
31	Evaluation of sun photometer capabilities for retrievals of aerosol optical depth at high latitudes: The POLAR-AOD intercomparison campaigns. <i>Atmospheric Environment</i> , 2012, 52, 4-17.	1.9	24
32	Atmospheric monitoring at the Norwegian Antarctic station Troll: measurement programme and first results. <i>Polar Research</i> , 2009, 28, 353-363.	1.6	23
33	Aerosol characterization at the sub-Arctic site Andenes (69°N, 16°E), by the analysis of columnar optical properties. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2012, 138, 471-482.	1.0	21
34	Improved optical flow velocity analysis in SO <sub>2</sub> camera images of volcanic plumes – implications for emission-rate retrievals investigated at Mt Etna, Italy and Guallatiri, Chile. <i>Atmospheric Measurement Techniques</i> , 2018, 11, 781-801.	1.2	21
35	Stratospheric aerosol data records for the climate change initiative: Development, validation and application to chemistry-climate modelling. <i>Remote Sensing of Environment</i> , 2017, 203, 296-321.	4.6	20
36	Retrieval of atmospheric static stability from MST radar return signal power. <i>Annales Geophysicae</i> , 2004, 22, 3781-3788.	0.6	19

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37	Quality assurance of solar UV irradiance in the Arctic. <i>Photochemical and Photobiological Sciences</i> , 2010, 9, 384.	1.6	19
38	Polar mesosphere summer echoes and noctilucent clouds: Simultaneous and common-volume observations by radar, lidar and CCD camera. <i>Geophysical Research Letters</i> , 2000, 27, 661-664.	1.5	18
39	Simultaneous lidar observations of a polar stratospheric cloud on the east and west sides of the Scandinavian mountains and microphysical box model simulations. <i>Annales Geophysicae</i> , 2006, 24, 3267-3277.	0.6	18
40	Some ozone profiles retrieved by neural network techniques: A global validation with lidar measurements. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2007, 107, 105-119.	1.1	17
41	Pyplis – A Python Software Toolbox for the Analysis of SO <sub>2</sub> Camera Images for Emission Rate Retrievals from Point Sources. <i>Geosciences (Switzerland)</i> , 2017, 7, 134.	1.0	16
42	First estimates of fumarolic SO <sub>2</sub> fluxes from Putana volcano, Chile, using an ultraviolet imaging camera. <i>Journal of Volcanology and Geothermal Research</i> , 2015, 300, 112-120.	0.8	14
43	Spatiotemporal Patterns in Data Availability of the Sentinel-5P NO <sub>2</sub> Product over Urban Areas in Norway. <i>Remote Sensing</i> , 2021, 13, 2095.	1.8	14
44	Measurement of three dimensional volcanic plume properties using multiple ground based infrared cameras. <i>ISPRS Journal of Photogrammetry and Remote Sensing</i> , 2019, 154, 163-175.	4.9	12
45	Investigations of the possible relationship between PM <sub>10</sub> and tides using a VHF MST radar. <i>Geophysical Research Letters</i> , 1998, 25, 3297-3300.	1.5	11
46	Mountain wave motions determined by the Esrange MST radar. <i>Annales Geophysicae</i> , 1999, 17, 957-970.	0.6	11
47	Comparison of dust-layer heights from active and passive satellite sensors. <i>Atmospheric Measurement Techniques</i> , 2018, 11, 2911-2936.	1.2	11
48	EARLINET correlative measurements for CALIPSO. , 2007, , .		9
49	EARLINET observations of the Eyjafjallajökull ash plume over Europe. , 2010, , .		9
50	Ground-based assessment of the bias and long-term stability of fourteen limb and occultation ozone profile data records. , 2016, 9, 2497-2534.		9
51	What caused a record high PM <sub>10</sub> episode in northern Europe in October 2020?. <i>Atmospheric Chemistry and Physics</i> , 2022, 22, 3789-3810.	1.9	8
52	Application of wavelet transformation to determine wavelengths and phase velocities of gravity waves observed by lidar measurements. <i>Journal of Atmospheric and Solar-Terrestrial Physics</i> , 2007, 69, 2249-2256.	0.6	7
53	Observation of turbulent dispersion of artificially released SO <sub>2</sub> puffs with UV cameras. <i>Atmospheric Measurement Techniques</i> , 2018, 11, 6169-6188.	1.2	7
54	Measurements of UV radiation on rotating vertical plane at the ALOMAR Observatory (69° N, 16° E), Norway, June 2007. <i>Atmospheric Chemistry and Physics</i> , 2008, 8, 3033-3043.	1.9	6

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55	SAMIRA-SATellite Based Monitoring Initiative for Regional Air Quality. Remote Sensing, 2021, 13, 2219.	1.8	6
56	Satellite validation strategy assessments based on the AROMAT campaigns. Atmospheric Measurement Techniques, 2020, 13, 5513-5535.	1.2	6
57	Aerosol optical properties in Northern Norway and Svalbard. Applied Optics, 2016, 55, 660.	2.1	5
58	Remote sensing of aerosols in the Arctic for an evaluation of global climate model simulations. Journal of Geophysical Research D: Atmospheres, 2014, 119, 8169-8188.	1.2	5
59	Impact of 3D cloud structures on the atmospheric trace gas products from UV-Vis sounders Part 1: Synthetic dataset for validation of trace gas retrieval algorithms. Atmospheric Measurement Techniques, 2022, 15, 1587-1608.	1.2	5
60	Ozone mini-hole observation over the Balkan Peninsula in March 2005. Advances in Space Research, 2009, 43, 195-200.	1.2	4
61	Impact of 3D cloud structures on the atmospheric trace gas products from UV-Vis sounders Part 3: Bias estimate using synthetic and observational data. Atmospheric Measurement Techniques, 2022, 15, 3481-3495.	1.2	4
62	SEVIRI Aerosol Optical Depth Validation Using AERONET and Intercomparison with MODIS in Central and Eastern Europe. Remote Sensing, 2021, 13, 844.	1.8	3
63	Earth observations and volcanic ash. A report from the ESA/Eumetsat Dublin workshop, 4-7 March 2013, April 2014. , 2014, , .		3
64	The evolution of polar stratospheric clouds above spitsbergen. Journal of Aerosol Science, 1997, 28, S423-S424.	1.8	2
65	Study of the seasonal ozone variations at European high latitudes. Advances in Space Research, 2011, 47, 740-747.	1.2	2
66	Validation of new satellite aerosol optical depth retrieval algorithm using Raman lidar observations at radiative transfer laboratory in Warsaw. EPJ Web of Conferences, 2018, 176, 04008.	0.1	2
67	A novel, high resolution temperature sensor for balloon applications. Advances in Space Research, 2002, 30, 1365-1369.	1.2	0
68	Observation and characterization of aerosols above ALOMAR (69 degrees N) by tropospheric lidar, sun-photometer, and VHF radar. , 2006, , .		0
69	Summer lidar measurements in the troposphere over ALOMAR, Norway in 2007. , 2008, , .		0
70	Characterization of Sub-Arctic Aerosols at ALOMAR (69 N,16 E) using Sun Photometer Measurements (2002-2007). , 2009, , .		0
71	Using self-organising maps to explore ozone profile validation results SCIAMACHY limb compared to ground-based lidar observations. Atmospheric Measurement Techniques, 2015, 8, 1951-1963.	1.2	0
72	Case study of the development of polar stratospheric clouds using bistatic imaging. Annales Geophysicae, 2003, 21, 1869-1878.	0.6	0

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73	Can statistics of turbulent tracer dispersion be inferred from camera observations of SO <sub>2</sub> in the ultraviolet? A modelling study. Atmospheric Measurement Techniques, 2020, 13, 3303-3318.	1.2	0