Johanna Tamminen

List of Publications by Year
in descending order

117 papers	6,773 citations	109321 35 h-index	71685 76 g-index
191 all docs	191 docs citations	191 times ranked	6540 citing authors

#	Article	IF	Citations
1	An Adaptive Metropolis Algorithm. Bernoulli, 2001, 7, 223.	1.3	1,884
2	Science objectives of the ozone monitoring instrument. IEEE Transactions on Geoscience and Remote Sensing, 2006, 44, 1199-1208.	6.3	439
3	Adaptive proposal distribution for random walk Metropolis algorithm. Computational Statistics, 1999, 14, 375-395.	1.5	304
4	The Ozone Monitoring Instrument: overview of 14 years in space. Atmospheric Chemistry and Physics, 2018, 18, 5699-5745.	4.9	259
5	Impact of different energies of precipitating particles on NOx generation in the middle and upper atmosphere during geomagnetic storms. Journal of Atmospheric and Solar-Terrestrial Physics, 2009, 71, 1176-1189.	1.6	166
6	The Orbiting Carbon Observatory-2 early science investigations of regional carbon dioxide fluxes. Science, 2017, 358, .	12.6	157
7	Componentwise adaptation for high dimensional MCMC. Computational Statistics, 2005, 20, 265-273.	1.5	156
8	GOMOS on Envisat: an overview. Advances in Space Research, 2004, 33, 1020-1028.	2.6	142
9	Direct spaceâ€based observations of anthropogenic CO₂ emission areas from OCOâ€2. Geophysical Research Letters, 2016, 43, 11,400.	4.0	137
10	Validation of daily erythemal doses from Ozone Monitoring Instrument with groundâ€based UV measurement data. Journal of Geophysical Research, 2007, 112, .	3.3	129
11	Permafrost carbon emissions in a changing Arctic. Nature Reviews Earth & Environment, 2022, 3, 55-67.	29.7	124
12	Past changes in the vertical distribution of ozone â€“ Part 3: Analysis and interpretation of trends. Atmospheric Chemistry and Physics, 2015, 15, 9965-9982.	4.9	115
13	Global ozone monitoring by occultation of stars: an overview of GOMOS measurements on ENVISAT. Atmospheric Chemistry and Physics, 2010, 10, 12091-12148.	4.9	102
14	Arctic and Antarctic polar winter NOxand energetic particle precipitation in 2002â€“2006. Geophysical Research Letters, 2007, 34, .	4.0	97
15	Combined SAGE IIâ€“GOMOS ozone profile data set for 1984â€“2011 and trend analysis of the vertical distribution of ozone. Atmospheric Chemistry and Physics, 2013, 13, 10645-10658.	4.9	97
16	Production of odd hydrogen in the mesosphere during the January 2005 solar proton event. Geophysical Research Letters, 2006, 33, .	4.0	93
17	Destruction of the tertiary ozone maximum during a solar proton event. Geophysical Research Letters, 2006, 33, .	4.0	75
18	Markov chain Monte Carlo methods for high dimensional inversion in remote sensing. Journal of the Royal Statistical Society Series B: Statistical Methodology, 2004, 66, 591-607.	2.2	74

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19	A new approach to correct for absorbing aerosols in OMI UV. Geophysical Research Letters, 2009, 36, .	4.0	71
20	Retrieval of atmospheric parameters from GOMOS data. Atmospheric Chemistry and Physics, 2010, 10, 11881-11903.	4.9	71
21	Efficient MCMC for Climate Model Parameter Estimation: Parallel Adaptive Chains and Early Rejection. Bayesian Analysis, 2012, 7, .	3.0	68
22	Past changes in the vertical distribution of ozone â€“ Part 1: Measurement techniques, uncertainties and availability. Atmospheric Measurement Techniques, 2014, 7, 1395-1427.	3.1	67
23	First results on GOMOS/ENVISAT. Advances in Space Research, 2004, 33, 1029-1035.	2.6	66
24	Absorption cross-sections of ozone in the ultraviolet and visible spectral regions: Status report 2015. Journal of Molecular Spectroscopy, 2016, 327, 105-121.	1.2	57
25	Nighttime ozone profiles in the stratosphere and mesosphere by the Global Ozone Monitoring by Occultation of Stars on Envisat. Journal of Geophysical Research, 2006, 111, .	3.3	55
26	GOMOS O₃, NO₂, and NO₃ observations in 2002â€“2008. Atmospheric Chemistry and Physics, 2010, 10, 7723-7738.	4.9	55
27	Harmonized dataset of ozone profiles from satellite limb and occultation measurements. Earth System Science Data, 2013, 5, 349-363.	9.9	52
28	Bayesian solution for nonlinear and non-Gaussian inverse problems by Markov chain Monte Carlo method. Journal of Geophysical Research, 2001, 106, 14377-14390.	3.3	51
29	First simultaneous global measurements of nighttime stratospheric NO2and NO3observed by Global Ozone Monitoring by Occultation of Stars (GOMOS)/Envisat in 2003. Journal of Geophysical Research, 2005, 110, .	3.3	50
30	Comparison of OMI NO₂ observations and their seasonal and weekly cycles with ground-based measurements in Helsinki. Atmospheric Measurement Techniques, 2016, 9, 5203-5212.	3.1	46
31	Ozone profile smoothness as a priori information in the inversion of limb measurements. Annales Geophysicae, 2004, 22, 3411-3420.	1.6	44
32	Estimation of ECHAM5 climate model closure parameters with adaptive MCMC. Atmospheric Chemistry and Physics, 2010, 10, 9993-10002.	4.9	44
33	Overview of the O3M SAF GOME-2 operational atmospheric composition and UV radiation data products and data availability. Atmospheric Measurement Techniques, 2016, 9, 383-407.	3.1	44
34	Merged SAGEÂII, Ozone_cci and OMPS ozone profile dataset and evaluation of ozone trends in the stratosphere. Atmospheric Chemistry and Physics, 2017, 17, 12533-12552.	4.9	44
35	GOMOS data characterisation and error estimation. Atmospheric Chemistry and Physics, 2010, 10, 9505-9519.	4.9	43
36	Biomass burning aerosols observed in Eastern Finland during the Russian wildfires in summer 2010 â€“ Part 2: Remote sensing. Atmospheric Environment, 2012, 47, 279-287.	4.1	41

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37	Comparison of OMI UV observations with ground-based measurements at high northern latitudes. Atmospheric Chemistry and Physics, 2015, 15, 7391-7412.	4.9	40
38	About the increase of HNO₃ in the stratopause region during the Halloween 2003 solar proton event. Geophysical Research Letters, 2008, 35, .	4.0	39
39	Characterization of a volcanic ash episode in southern Finland caused by the GrimsvÃ¶tn eruption in Iceland in May 2011. Atmospheric Chemistry and Physics, 2011, 11, 12227-12239.	4.9	39
40	Spaceâ€Based Observations for Understanding Changes in the Arcticâ€Boreal Zone. Reviews of Geophysics, 2020, 58, e2019RG000652.	23.0	39
41	A global climatology of the mesospheric sodium layer from GOMOS data during the 2002â€“2008 period. Atmospheric Chemistry and Physics, 2010, 10, 9225-9236.	4.9	35
42	Influence of scintillation on quality of ozone monitoring by GOMOS. Atmospheric Chemistry and Physics, 2009, 9, 9197-9207.	4.9	33
43	On sampling uncertainty of satellite ozone profile measurements. Atmospheric Measurement Techniques, 2014, 7, 1891-1900.	3.1	32
44	Optical extinction by upper tropospheric/stratospheric aerosols and clouds: GOMOS observations for the period 2002â€“2008. Atmospheric Chemistry and Physics, 2010, 10, 7997-8009.	4.9	31
45	Validation of nonlinear inverse algorithms with Markov chain Monte Carlo method. Journal of Geophysical Research, 2004, 109, .	3.3	29
46	Spatio-temporal observations of the tertiary ozone maximum. Atmospheric Chemistry and Physics, 2009, 9, 4439-4445.	4.9	29
47	Ozone zonal asymmetry and planetary wave characterization during Antarctic spring. Atmospheric Chemistry and Physics, 2012, 12, 2603-2614.	4.9	28
48	Global measurement of the mesospheric sodium layer by the star occultation instrument GOMOS. Geophysical Research Letters, 2004, 31, .	4.0	26
49	Response of tropical stratospheric O₃, NO₂ and NO₃ to the equatorial Quasi-Biennial Oscillation and to temperature as seen from GOMOS/ENVISAT. Atmospheric Chemistry and Physics, 2010, 10, 8873-8879.	4.9	26
50	On closure parameter estimation in chaotic systems. Nonlinear Processes in Geophysics, 2012, 19, 127-143.	1.3	26
51	Description and validation of a limb scatter retrieval method for Odin/OSIRIS. Journal of Geophysical Research, 2008, 113, .	3.3	24
52	Polar-night O₃, NO₂ and NO₃ distributions during sudden stratospheric warmings in 2003â€“2008 as seen by GOMOS/Envisat. Atmospheric Chemistry and Physics, 2012, 12, 1051-1066.	4.9	24
53	Characterization of OMI tropospheric NO₂ over the Baltic Sea region. Atmospheric Chemistry and Physics, 2014, 14, 7795-7805.	4.9	24
54	A novel tropopause-related climatology of ozone profiles. Atmospheric Chemistry and Physics, 2014, 14, 283-299.	4.9	24

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55	Comparison of operational satellite SO₂ products with ground-based observations in northern Finland during the Icelandic Holuhraun fissure eruption. Atmospheric Measurement Techniques, 2015, 8, 2279-2289.	3.1	24
56	Validation of MIPAS IMK/IAA V5R_O3_224 ozone profiles. Atmospheric Measurement Techniques, 2014, 7, 3971-3987.	3.1	24
57	Global analysis of scintillation variance: Indication of gravity wave breaking in the polar winter upper stratosphere. Geophysical Research Letters, 2007, 34, .	4.0	23
58	The TROPOMI surface UV algorithm. Atmospheric Measurement Techniques, 2018, 11, 997-1008.	3.1	23
59	A comparison of night-time GOMOS and MIPAS ozone profiles in the stratosphere and mesosphere. Advances in Space Research, 2005, 36, 958-966.	2.6	22
60	Use of satellite erythemal UV products in analysing the global UV changes. Atmospheric Chemistry and Physics, 2011, 11, 9649-9658.	4.9	21
61	Retrievals from GOMOS stellar occultation measurements using characterization of modeling errors. Atmospheric Measurement Techniques, 2010, 3, 1019-1027.	3.1	21
62	A 2003 stratospheric aerosol extinction and PSC climatology from GOMOS measurements on Envisat. Atmospheric Chemistry and Physics, 2005, 5, 2413-2417.	4.9	20
63	Aerosol model selection and uncertainty modelling by adaptive MCMC technique. Atmospheric Chemistry and Physics, 2008, 8, 7697-7707.	4.9	19
64	A global OClO stratospheric layer discovered in GOMOS stellar occultation measurements. Geophysical Research Letters, 2006, 33, .	4.0	17
65	Evaluation and Analysis of the Seasonal Cycle and Variability of the Trend from GOSAT Methane Retrievals. Remote Sensing, 2019, 11, 882.	4.0	17
66	Monitoring Greenhouse Gases from Space. Remote Sensing, 2021, 13, 2700.	4.0	17
67	Validation of the TROPOspheric Monitoring Instrument (TROPOMI) surface UV radiation product. Atmospheric Measurement Techniques, 2020, 13, 6999-7024.	3.1	17
68	The link between springtime total ozone and summer UV radiation in Northern Hemisphere extratropics. Journal of Geophysical Research D: Atmospheres, 2013, 118, 8649-8661.	3.3	16
69	Retrieval of atmospheric CH₄profiles from Fourier transform infrared data using dimension reduction and MCMC. Journal of Geophysical Research D: Atmospheres, 2016, 121, 10,312-10,327.	3.3	16
70	Impact of spaceborne carbon monoxide observations from the S-5P platform on tropospheric composition analyses and forecasts. Atmospheric Chemistry and Physics, 2017, 17, 1081-1103.	4.9	16
71	Simultaneous measurements of OClO, NO₂ and O₃ in the Arctic polar vortex by the GOMOS instrument. Atmospheric Chemistry and Physics, 2009, 9, 7857-7866.	4.9	15
72	The Atmospheric Imaging Mission for Northern Regions: AIM-North. Canadian Journal of Remote Sensing, 2019, 45, 423-442.	2.4	14

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73	Measurement report: regional trends of stratospheric ozone evaluated using the MErged GRIdded Dataset of Ozone Profiles (MEGRIDOP). Atmospheric Chemistry and Physics, 2021, 21, 6707-6720.	4.9	14
74	Relative drifts and biases between six ozone limb satellite measurements from the last decade. Atmospheric Measurement Techniques, 2015, 8, 4369-4381.	3.1	13
75	Validation of GOME-2/Metop total column water vapour with ground-based and in situ measurements. Atmospheric Measurement Techniques, 2016, 9, 1533-1544.	3.1	13
76	AerGOM, an improved algorithm for stratospheric aerosol extinction retrieval from GOMOS observations â€“ Part 1: Algorithm description. Atmospheric Measurement Techniques, 2016, 9, 4687-4700.	3.1	13
77	Description and validation of the OMI very fast delivery products. Journal of Geophysical Research, 2008, 113, .	3.3	12
78	A neural network algorithm for cloud fraction estimation using NASA-Aura OMI VIS radiance measurements. Atmospheric Measurement Techniques, 2013, 6, 2301-2309.	3.1	12
79	Validation of GOMOS ozone precision estimates in the stratosphere. Atmospheric Measurement Techniques, 2014, 7, 2147-2158.	3.1	12
80	Benefit of ozone observations from Sentinel-5P and future Sentinel-4 missions on tropospheric composition. Atmospheric Measurement Techniques, 2020, 13, 131-152.	3.1	12
81	Application of satellite-based sulfur dioxide observations to support the cleantech sector: Detecting emission reduction from copper smelters. Environmental Technology and Innovation, 2018, 12, 172-179.	6.1	11
82	OMI very fast delivery and the Sodankyla/spl uml/ Satellite Data Centre. IEEE Transactions on Geoscience and Remote Sensing, 2006, 44, 1283-1287.	6.3	10
83	Statistical comparison of night-time NO2 observations in 2003â€“2006 from GOMOS and MIPAS instruments. Advances in Space Research, 2009, 43, 1918-1925.	2.6	10
84	Improved GOMOS/Envisat ozone retrievals in the upper troposphere and the lower stratosphere. Atmospheric Measurement Techniques, 2017, 10, 231-246.	3.1	10
85	The Aerosol Index and Land Cover Class Based Atmospheric Correction Aerosol Optical Depth Time Series 1982â€“2014 for the SMAC Algorithm. Remote Sensing, 2017, 9, 1095.	4.0	9
86	Evidence for energetic particle precipitation and quasi-biennial oscillation modulations of the Antarctic NO₂ springtime stratospheric column from OMI observations. Atmospheric Chemistry and Physics, 2020, 20, 6259-6271.	4.9	9
87	Aerosol-type retrieval and uncertainty quantification from OMI data. Atmospheric Measurement Techniques, 2017, 10, 4079-4098.	3.1	8
88	A method for random uncertainties validation and probing the natural variability with application to TROPOMI on board Sentinel-5P total ozone measurements. Atmospheric Measurement Techniques, 2021, 14, 2993-3002.	3.1	7
89	A first comparison of GOMOS aerosol extinction retrievals with other measurements. Advances in Space Research, 2005, 36, 894-898.	2.6	6
90	Quantification of uncertainty in aerosol optical thickness retrieval arising from aerosol microphysical model and other sources, applied to Ozone Monitoring Instrument (OMI) measurements. Atmospheric Measurement Techniques, 2014, 7, 1185-1199.	3.1	6

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91	Vertical Distribution of Arctic Methane in 2009â€"2018 Using Ground-Based Remote Sensing. Remote Sensing, 2020, 12, 917.	4.0	6
92	Observational evidence of energetic particle precipitation NO_{<i>x</i>} (EPP-NO_{<i>x</i>}) interaction with chlorine curbing Antarctic ozone loss. Atmospheric Chemistry and Physics, 2021, 21, 2819-2836.	4.9	6
93	Accelerated MCMC for Satellite-Based Measurements of Atmospheric CO2. Remote Sensing, 2019, 11, 2061.	4.0	5
94	Autoregressive smoothing of GOMOS transmittances. Advances in Space Research, 2005, 36, 899-905.	2.6	4
95	Comment on "Using multiple observationally-based constraints to estimate climate sensitivity" by J. D. Annan and J. C. Hargreaves, Geophys. Res. Lett., 2006. Climate of the Past, 2010, 6, 411-414.	3.4	4
96	GOMOS bright limb ozone data set. Atmospheric Measurement Techniques, 2015, 8, 3107-3115.	3.1	4
97	GOMOS Ozone Profiles at High Latitudes: Comparison with Marambio and SodankylÃ Sonde Measurements. , 2006, , 47-54.		4
98	Modeling Errors of GOMOS Measurements: A Sensitivity Study. , 2006, , 67-78.		4
99	Recent results from the Ozone Monitoring Instrument (OMI) on EOS Aura. , 2006, , .		3
100	Comparison of GOME-2/Metop-A ozone profiles with GOMOS, OSIRIS and MLS measurements. Atmospheric Measurement Techniques, 2016, 9, 249-261.	3.1	3
101	Dayâ€"Night Monitoring of Volcanic SO2 and Ash Clouds for Aviation Avoidance at Northern Polar Latitudes. Remote Sensing, 2021, 13, 4003.	4.0	3
102	Analyzing Local Carbon Dioxide and Nitrogen Oxide Emissions From Space Using the Divergence Method: An Application to the Synthetic SMARTCARB Dataset. Frontiers in Remote Sensing, 0, 3, .	3.5	3
103	Direct comparisons of GOMOS and SAGE III NO₃ vertical profiles. Atmospheric Measurement Techniques, 2012, 5, 1841-1846.	3.1	2
104	OClO slant column densities derived from GOMOS averaged transmittance measurements. Atmospheric Measurement Techniques, 2013, 6, 2953-2964.	3.1	2
105	The Quadrennial Ozone Symposium 2016. Advances in Atmospheric Sciences, 2017, 34, 283-288.	4.3	2
106	Rethinking the correction for absorbing aerosols in the OMI- and TROPOMI-like surface UV algorithms. Atmospheric Measurement Techniques, 2021, 14, 4947-4957.	3.1	2
107	Synergy of Using Nadir and Limb Instruments for Tropospheric Ozone Monitoring (SUNLIT). Atmospheric Measurement Techniques, 2022, 15, 3193-3212.	3.1	2
108	Data processing of the GOMOS instrument by using an adaptive MCMC method. , 1998, , .		1

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109	GOMOS serendipitous data products: The mesospheric sodium layer and various limb emissions. Advances in Space Research, 2005, 36, 967-972.	2.6	1
110	GOMOS one-step retrieval algorithm. , 2013, , .		1
111	Real Time Volcanic Cloud Products and Predictions for Aviation Alerts. , 2014, , .		1
112	Corrigendum to "On sampling uncertainty of satellite ozone profile measurements" published in Atmos. Meas. Tech., 7, 1891â€“1900, 2014. Atmospheric Measurement Techniques, 2015, 8, 341-341.	3.1	1
113	GOMOS validation. , 0, , .		0
114	Uncertainty quantification in aerosol optical thickness retrieval from Ozone Monitoring Instrument (OMI) measurements. , 2013, , .		0
115	Likelihood Informed Dimension Reduction for Remote Sensing of Atmospheric Constituent Profiles. MATRIX Book Series, 2019, , 65-78.	0.2	0
116	Envisat/GOMOS Stellar Occultation: Inversion Schemes and First Analyses of Real Data. , 2004, , 275-287.		0
117	Data processing and sensitivity studies of the GOMOS instrument. , 1996, , .		0