

Johanna Tamminen

List of Publications by Year in descending order

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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	Permafrost carbon emissions in a changing Arctic. <i>Nature Reviews Earth & Environment</i> , 2022, 3, 55-67.	29.7	124
2	Synergy of Using Nadir and Limb Instruments for Tropospheric Ozone Monitoring (SUNLIT). <i>Atmospheric Measurement Techniques</i> , 2022, 15, 3193-3212.	3.1	2
3	Observational evidence of energetic particle precipitation NO ₂ and SO ₂ (EPP-NO ₂ and SO ₂) interaction with chlorine curbing Antarctic ozone loss. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 2819-2836.	4.9	6
4	A method for random uncertainties validation and probing the natural variability with application to TROPOMI on board Sentinel-5P total ozone measurements. <i>Atmospheric Measurement Techniques</i> , 2021, 14, 2993-3002.	3.1	7
5	Measurement report: regional trends of stratospheric ozone evaluated using the Merged GRidded Dataset of Ozone Profiles (MEGRIDOP). <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 6707-6720.	4.9	14
6	Rethinking the correction for absorbing aerosols in the OMI- and TROPOMI-like surface UV algorithms. <i>Atmospheric Measurement Techniques</i> , 2021, 14, 4947-4957.	3.1	2
7	Monitoring Greenhouse Gases from Space. <i>Remote Sensing</i> , 2021, 13, 2700.	4.0	17
8	Day-Night Monitoring of Volcanic SO ₂ and Ash Clouds for Aviation Avoidance at Northern Polar Latitudes. <i>Remote Sensing</i> , 2021, 13, 4003.	4.0	3
9	Space-Based Observations for Understanding Changes in the Arctic-Boreal Zone. <i>Reviews of Geophysics</i> , 2020, 58, e2019RG000652.	23.0	39
10	Evidence for energetic particle precipitation and quasi-biennial oscillation modulations of the Antarctic NO ₂ springtime stratospheric column from OMI observations. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 6259-6271.	4.9	9
11	Benefit of ozone observations from Sentinel-5P and future Sentinel-4 missions on tropospheric composition. <i>Atmospheric Measurement Techniques</i> , 2020, 13, 131-152.	3.1	12
12	Vertical Distribution of Arctic Methane in 2009-2018 Using Ground-Based Remote Sensing. <i>Remote Sensing</i> , 2020, 12, 917.	4.0	6
13	Validation of the Tropospheric Monitoring Instrument (TROPOMI) surface UV radiation product. <i>Atmospheric Measurement Techniques</i> , 2020, 13, 6999-7024.	3.1	17
14	Accelerated MCMC for Satellite-Based Measurements of Atmospheric CO ₂ . <i>Remote Sensing</i> , 2019, 11, 2061.	4.0	5
15	Evaluation and Analysis of the Seasonal Cycle and Variability of the Trend from GOSAT Methane Retrievals. <i>Remote Sensing</i> , 2019, 11, 882.	4.0	17
16	Likelihood Informed Dimension Reduction for Remote Sensing of Atmospheric Constituent Profiles. <i>MATRIX Book Series</i> , 2019, , 65-78.	0.2	0
17	The Atmospheric Imaging Mission for Northern Regions: AIM-North. <i>Canadian Journal of Remote Sensing</i> , 2019, 45, 423-442.	2.4	14
18	Application of satellite-based sulfur dioxide observations to support the cleantech sector: Detecting emission reduction from copper smelters. <i>Environmental Technology and Innovation</i> , 2018, 12, 172-179.	6.1	11

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19	The Ozone Monitoring Instrument: overview of 14 years in space. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 5699-5745.	4.9	259
20	The TROPOMI surface UV algorithm. <i>Atmospheric Measurement Techniques</i> , 2018, 11, 997-1008.	3.1	23
21	The Quadrennial Ozone Symposium 2016. <i>Advances in Atmospheric Sciences</i> , 2017, 34, 283-288.	4.3	2
22	The Orbiting Carbon Observatory-2 early science investigations of regional carbon dioxide fluxes. <i>Science</i> , 2017, 358, .	12.6	157
23	Impact of spaceborne carbon monoxide observations from the S-5P platform on tropospheric composition analyses and forecasts. <i>Atmospheric Chemistry and Physics</i> , 2017, 17, 1081-1103.	4.9	16
24	Merged SAGE II, Ozone_cci and OMPS ozone profile dataset and evaluation of ozone trends in the stratosphere. <i>Atmospheric Chemistry and Physics</i> , 2017, 17, 12533-12552.	4.9	44
25	Improved GOMOS/Envisat ozone retrievals in the upper troposphere and the lower stratosphere. <i>Atmospheric Measurement Techniques</i> , 2017, 10, 231-246.	3.1	10
26	Aerosol-type retrieval and uncertainty quantification from OMI data. <i>Atmospheric Measurement Techniques</i> , 2017, 10, 4079-4098.	3.1	8
27	The Aerosol Index and Land Cover Class Based Atmospheric Correction Aerosol Optical Depth Time Series 1982–2014 for the SMAC Algorithm. <i>Remote Sensing</i> , 2017, 9, 1095.	4.0	9
28	Validation of GOME-2/Metop total column water vapour with ground-based and in situ measurements. <i>Atmospheric Measurement Techniques</i> , 2016, 9, 1533-1544.	3.1	13
29	Comparison of GOME-2/Metop-A ozone profiles with GOMOS, OSIRIS and MLS measurements. <i>Atmospheric Measurement Techniques</i> , 2016, 9, 249-261.	3.1	3
30	Comparison of OMI NO ₂ observations and their seasonal and weekly cycles with ground-based measurements in Helsinki. <i>Atmospheric Measurement Techniques</i> , 2016, 9, 5203-5212.	3.1	46
31	Overview of the O3M SAF GOME-2 operational atmospheric composition and UV radiation data products and data availability. <i>Atmospheric Measurement Techniques</i> , 2016, 9, 383-407.	3.1	44
32	AerGOM, an improved algorithm for stratospheric aerosol extinction retrieval from GOMOS observations – Part 1: Algorithm description. <i>Atmospheric Measurement Techniques</i> , 2016, 9, 4687-4700.	3.1	13
33	Absorption cross-sections of ozone in the ultraviolet and visible spectral regions: Status report 2015. <i>Journal of Molecular Spectroscopy</i> , 2016, 327, 105-121.	1.2	57
34	Direct space-based observations of anthropogenic CO ₂ emission areas from OCO ₂ . <i>Geophysical Research Letters</i> , 2016, 43, 11,400.	4.0	137
35	Retrieval of atmospheric CH ₄ profiles from Fourier transform infrared data using dimension reduction and MCMC. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016, 121, 10,312-10,327.	3.3	16
36	Comparison of OMI UV observations with ground-based measurements at high northern latitudes. <i>Atmospheric Chemistry and Physics</i> , 2015, 15, 7391-7412.	4.9	40

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37	Past changes in the vertical distribution of ozone – Part 3: Analysis and interpretation of trends. Atmospheric Chemistry and Physics, 2015, 15, 9965-9982.	4.9	115
38	GOMOS bright limb ozone data set. Atmospheric Measurement Techniques, 2015, 8, 3107-3115.	3.1	4
39	Comparison of operational satellite SO ₂ products with ground-based observations in northern Finland during the Icelandic Holuhraun fissure eruption. Atmospheric Measurement Techniques, 2015, 8, 2279-2289.	3.1	24
40	Relative drifts and biases between six ozone limb satellite measurements from the last decade. Atmospheric Measurement Techniques, 2015, 8, 4369-4381.	3.1	13
41	Corrigendum to "On sampling uncertainty of satellite ozone profile measurements" published in Atmos. Meas. Tech., 7, 1891-1900, 2014. Atmospheric Measurement Techniques, 2015, 8, 341-341.	3.1	1
42	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
43	On sampling uncertainty of satellite ozone profile measurements. Atmospheric Measurement Techniques, 2014, 7, 1891-1900.	3.1	32
44	Validation of GOMOS ozone precision estimates in the stratosphere. Atmospheric Measurement Techniques, 2014, 7, 2147-2158.	3.1	12
45	Past changes in the vertical distribution of ozone – Part 1: Measurement techniques, uncertainties and availability. Atmospheric Measurement Techniques, 2014, 7, 1395-1427.	3.1	67
46	Real Time Volcanic Cloud Products and Predictions for Aviation Alerts. , 2014, , .		1
47	Characterization of OMI tropospheric NO ₂ over the Baltic Sea region. Atmospheric Chemistry and Physics, 2014, 14, 7795-7805.	4.9	24
48	A novel tropopause-related climatology of ozone profiles. Atmospheric Chemistry and Physics, 2014, 14, 283-299.	4.9	24
49	Validation of MIPAS IMK/IAA V5R_O3_224 ozone profiles. Atmospheric Measurement Techniques, 2014, 7, 3971-3987.	3.1	24
50	Uncertainty quantification in aerosol optical thickness retrieval from Ozone Monitoring Instrument (OMI) measurements. , 2013, , .		0
51	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
52	OCIO slant column densities derived from GOMOS averaged transmittance measurements. Atmospheric Measurement Techniques, 2013, 6, 2953-2964.	3.1	2
53	Harmonized dataset of ozone profiles from satellite limb and occultation measurements. Earth System Science Data, 2013, 5, 349-363.	9.9	52
54	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

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55	GOMOS one-step retrieval algorithm. , 2013, , .		1
56	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
57	Direct comparisons of GOMOS and SAGE III NO ₂ , NO ₃ and NO ₂ vertical profiles. Atmospheric Measurement Techniques, 2012, 5, 1841-1846.	3.1	2
58	Polar-night O ₃ , NO ₂ and NO ₃ distributions during sudden stratospheric warmings in 2003â€“2008 as seen by GOMOS/Envisat. Atmospheric Chemistry and Physics, 2012, 12, 1051-1066.	4.9	24
59	Ozone zonal asymmetry and planetary wave characterization during Antarctic spring. Atmospheric Chemistry and Physics, 2012, 12, 2603-2614.	4.9	28
60	Efficient MCMC for Climate Model Parameter Estimation: Parallel Adaptive Chains and Early Rejection. Bayesian Analysis, 2012, 7, .	3.0	68
61	On closure parameter estimation in chaotic systems. Nonlinear Processes in Geophysics, 2012, 19, 127-143.	1.3	26
62	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
63	Characterization of a volcanic ash episode in southern Finland caused by the Grimsv�rn eruption in Iceland in May 2011. Atmospheric Chemistry and Physics, 2011, 11, 12227-12239.	4.9	39
64	Use of satellite erythemal UV products in analysing the global UV changes. Atmospheric Chemistry and Physics, 2011, 11, 9649-9658.	4.9	21
65	GOMOS O ₃ , NO ₂ and NO ₃ observations in 2002â€“2008. Atmospheric Chemistry and Physics, 2010, 10, 7723-7738.	4.9	55
66	Retrieval of atmospheric parameters from GOMOS data. Atmospheric Chemistry and Physics, 2010, 10, 11881-11903.	4.9	71
67	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
68	Response of tropical stratospheric O ₃ , NO ₂ and NO ₃ 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
69	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
70	GOMOS data characterisation and error estimation. Atmospheric Chemistry and Physics, 2010, 10, 9505-9519.	4.9	43
71	Estimation of ECHAM5 climate model closure parameters with adaptive MCMC. Atmospheric Chemistry and Physics, 2010, 10, 9993-10002.	4.9	44
72	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

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73	Comment on "Using multiple observationally-based constraints to estimate climate sensitivity" by J. D. Annan and J. C. Hargreaves, <i>Geophys. Res. Lett.</i> , 2006, <i>Climate of the Past</i> , 2010, 6, 411-414.	3.4	4
74	Retrievals from GOMOS stellar occultation measurements using characterization of modeling errors. <i>Atmospheric Measurement Techniques</i> , 2010, 3, 1019-1027.	3.1	21
75	Impact of different energies of precipitating particles on NO _x generation in the middle and upper atmosphere during geomagnetic storms. <i>Journal of Atmospheric and Solar-Terrestrial Physics</i> , 2009, 71, 1176-1189.	1.6	166
76	Statistical comparison of night-time NO ₂ observations in 2003–2006 from GOMOS and MIPAS instruments. <i>Advances in Space Research</i> , 2009, 43, 1918-1925.	2.6	10
77	A new approach to correct for absorbing aerosols in OMI UV. <i>Geophysical Research Letters</i> , 2009, 36, .	4.0	71
78	Simultaneous measurements of OClO, NO ₂ and O ₃ in the Arctic polar vortex by the GOMOS instrument. <i>Atmospheric Chemistry and Physics</i> , 2009, 9, 7857-7866.	4.9	15
79	Spatio-temporal observations of the tertiary ozone maximum. <i>Atmospheric Chemistry and Physics</i> , 2009, 9, 4439-4445.	4.9	29
80	Influence of scintillation on quality of ozone monitoring by GOMOS. <i>Atmospheric Chemistry and Physics</i> , 2009, 9, 9197-9207.	4.9	33
81	Description and validation of a limb scatter retrieval method for Odin/OSIRIS. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	24
82	Description and validation of the OMI very fast delivery products. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	12
83	About the increase of HNO ₃ in the stratopause region during the Halloween 2003 solar proton event. <i>Geophysical Research Letters</i> , 2008, 35, .	4.0	39
84	Aerosol model selection and uncertainty modelling by adaptive MCMC technique. <i>Atmospheric Chemistry and Physics</i> , 2008, 8, 7697-7707.	4.9	19
85	Global analysis of scintillation variance: Indication of gravity wave breaking in the polar winter upper stratosphere. <i>Geophysical Research Letters</i> , 2007, 34, .	4.0	23
86	Arctic and Antarctic polar winter NO _x and energetic particle precipitation in 2002–2006. <i>Geophysical Research Letters</i> , 2007, 34, .	4.0	97
87	Validation of daily erythemal doses from Ozone Monitoring Instrument with ground-based UV measurement data. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	129
88	Destruction of the tertiary ozone maximum during a solar proton event. <i>Geophysical Research Letters</i> , 2006, 33, .	4.0	75
89	A global OClO stratospheric layer discovered in GOMOS stellar occultation measurements. <i>Geophysical Research Letters</i> , 2006, 33, .	4.0	17
90	Production of odd hydrogen in the mesosphere during the January 2005 solar proton event. <i>Geophysical Research Letters</i> , 2006, 33, .	4.0	93

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91	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
92	Recent results from the Ozone Monitoring Instrument (OMI) on EOS Aura. , 2006, , .		3
93	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
94	Science objectives of the ozone monitoring instrument. IEEE Transactions on Geoscience and Remote Sensing, 2006, 44, 1199-1208.	6.3	439
95	GOMOS Ozone Profiles at High Latitudes: Comparison with Marambio and SodankylÄ Sonde Measurements. , 2006, , 47-54.		4
96	Modeling Errors of GOMOS Measurements: A Sensitivity Study. , 2006, , 67-78.		4
97	A 2003 stratospheric aerosol extinction and PSC climatology from GOMOS measurements on Envisat. Atmospheric Chemistry and Physics, 2005, 5, 2413-2417.	4.9	20
98	GOMOS serendipitous data products: The mesospheric sodium layer and various limb emissions. Advances in Space Research, 2005, 36, 967-972.	2.6	1
99	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
100	A first comparison of GOMOS aerosol extinction retrievals with other measurements. Advances in Space Research, 2005, 36, 894-898.	2.6	6
101	Autoregressive smoothing of GOMOS transmittances. Advances in Space Research, 2005, 36, 899-905.	2.6	4
102	Componentwise adaptation for high dimensional MCMC. Computational Statistics, 2005, 20, 265-273.	1.5	156
103	First simultaneous global measurements of nighttime stratospheric NO2 and NO3 observed by Global Ozone Monitoring by Occultation of Stars (GOMOS)/Envisat in 2003. Journal of Geophysical Research, 2005, 110, .	3.3	50
104	Ozone profile smoothness as a priori information in the inversion of limb measurements. Annales Geophysicae, 2004, 22, 3411-3420.	1.6	44
105	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
106	GOMOS on Envisat: an overview. Advances in Space Research, 2004, 33, 1020-1028.	2.6	142
107	First results on GOMOS/ENVISAT. Advances in Space Research, 2004, 33, 1029-1035.	2.6	66
108	Global measurement of the mesospheric sodium layer by the star occultation instrument GOMOS. Geophysical Research Letters, 2004, 31, .	4.0	26

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109	Validation of nonlinear inverse algorithms with Markov chain Monte Carlo method. Journal of Geophysical Research, 2004, 109, .	3.3	29
110	Envisat/GOMOS Stellar Occultation: Inversion Schemes and First Analyses of Real Data. , 2004, , 275-287.		0
111	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
112	An Adaptive Metropolis Algorithm. Bernoulli, 2001, 7, 223.	1.3	1,884
113	Adaptive proposal distribution for random walk Metropolis algorithm. Computational Statistics, 1999, 14, 375-395.	1.5	304
114	Data processing of the GOMOS instrument by using an adaptive MCMC method. , 1998, , .		1
115	Data processing and sensitivity studies of the GOMOS instrument. , 1996, , .		0
116	GOMOS validation. , 0, , .		0
117	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