

Pawan K Bhartia

List of Publications by Year in descending order

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81900

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76
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100
docs citations

100
times ranked

4518
citing authors

#	ARTICLE	IF	CITATIONS
1	A global ozone profile climatology for satellite retrieval algorithms based on Aura MLS measurements and the MERRA-2 GMI simulation. <i>Atmospheric Measurement Techniques</i> , 2021, 14, 6407-6418.	3.1	5
2	New Era of Air Quality Monitoring from Space: Geostationary Environment Monitoring Spectrometer (GEMS). <i>Bulletin of the American Meteorological Society</i> , 2020, 101, E1-E22.	3.3	165
3	OMPS LP Observations of PSC Variability During the NH 2019–2020 Season. <i>Geophysical Research Letters</i> , 2020, 47, e2020GL090216.	4.0	17
4	A comparison of lognormal and gamma size distributions for characterizing the stratospheric aerosol phase function from optical particle counter measurements. <i>Atmospheric Measurement Techniques</i> , 2020, 13, 1071-1087.	3.1	6
5	Model-based climatology of diurnal variability in stratospheric ozone as a data analysis tool. <i>Atmospheric Measurement Techniques</i> , 2020, 13, 2733-2749.	3.1	11
6	Evaluation of the OMPS/LP stratospheric aerosol extinction product using SAGE III/ISS observations. <i>Atmospheric Measurement Techniques</i> , 2020, 13, 3471-3485.	3.1	11
7	A new discrete wavelength backscattered ultraviolet algorithm for consistent volcanic SO ₂ retrievals from multiple satellite missions. <i>Atmospheric Measurement Techniques</i> , 2019, 12, 5137-5153.	3.1	12
8	The Ozone Mapping and Profiler Suite (OMPS) Limb Profiler (LP) Version 1 aerosol extinction retrieval algorithm: theoretical basis. <i>Atmospheric Measurement Techniques</i> , 2018, 11, 2633-2651.	3.1	42
9	Impact of the ozone monitoring instrument row anomaly on the long-term record of aerosol products. <i>Atmospheric Measurement Techniques</i> , 2018, 11, 2701-2715.	3.1	85
10	Validation of ozone profile retrievals derived from the OMPS LP version 2.5 algorithm against correlative satellite measurements. <i>Atmospheric Measurement Techniques</i> , 2018, 11, 2837-2861.	3.1	27
11	Improvement of stratospheric aerosol extinction retrieval from OMPS/LP using a new aerosol model. <i>Atmospheric Measurement Techniques</i> , 2018, 11, 6495-6509.	3.1	28
12	A cloud algorithm based on the O ₂ -O ₂ 477 nm absorption band featuring an advanced spectral fitting method and the use of surface geometry-dependent Lambertian-equivalent reflectivity. <i>Atmospheric Measurement Techniques</i> , 2018, 11, 4093-4107.	3.1	21
13	The Ozone Monitoring Instrument: overview of 14 years in space. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 5699-5745.	4.9	259
14	Variability and evolution of the midlatitude stratospheric aerosol budget from 22 years of ground-based lidar and satellite observations. <i>Atmospheric Chemistry and Physics</i> , 2017, 17, 1829-1845.	4.9	55
15	Altitude registration of limb-scattered radiation. <i>Atmospheric Measurement Techniques</i> , 2017, 10, 167-178.	3.1	14
16	A new algorithm for detecting cloud height using OMPS/LP measurements. <i>Atmospheric Measurement Techniques</i> , 2016, 9, 1239-1246.	3.1	22
17	Gauss-Seidel limb scattering (GSLs) radiative transfer model development in support of the Ozone Mapping and Profiler Suite (OMPS) limb profiler mission. <i>Atmospheric Chemistry and Physics</i> , 2015, 15, 3007-3020.	4.9	19
18	Past changes in the vertical distribution of ozone – Part 3: Analysis and interpretation of trends. <i>Atmospheric Chemistry and Physics</i> , 2015, 15, 9965-9982.	4.9	115

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19	A total ozone-independent ozone profile climatology based on ozonesondes and Aura MLS data. Journal of Geophysical Research D: Atmospheres, 2015, 120, 2537-2545.	3.3	14
20	Comparison of profile total ozone from SBUV (v8.6) with GOME-type and ground-based total ozone for a 16-year period (1996 to 2011). Atmospheric Measurement Techniques, 2014, 7, 1681-1692.	3.1	17
21	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
22	Assessment and applications of NASA ozone data products derived from Aura OMI/MLS satellite measurements in context of the GMI chemical transport model. Journal of Geophysical Research D: Atmospheres, 2014, 119, 5671-5699.	3.3	40
23	OMPS Limb Profiler instrument performance assessment. Journal of Geophysical Research D: Atmospheres, 2014, 119, 4399-4412.	3.3	64
24	Measuring the Antarctic ozone hole with the new Ozone Mapping and Profiler Suite (OMPS). Atmospheric Chemistry and Physics, 2014, 14, 2353-2361.	4.9	41
25	Diurnal variations of stratospheric ozone measured by ground-based microwave remote sensing at the Mauna Loa NDACC site: measurement validation and GEOSCCM model comparison. Atmospheric Chemistry and Physics, 2014, 14, 7255-7272.	4.9	38
26	A Color Ratio Method for Simultaneous Retrieval of Aerosol and Cloud Optical Thickness of Above-Cloud Absorbing Aerosols From Passive Sensors: Application to MODIS Measurements. IEEE Transactions on Geoscience and Remote Sensing, 2013, 51, 3862-3870.	6.3	66
27	A new stratospheric and tropospheric NO ₂ retrieval algorithm for nadir-viewing satellite instruments: applications to OMI. Atmospheric Measurement Techniques, 2013, 6, 2607-2626.	3.1	269
28	Interpreting SBUV smoothing errors: an example using the quasi-biennial oscillation. Atmospheric Measurement Techniques, 2013, 6, 2089-2099.	3.1	21
29	Solar Backscatter UV (SBUV) total ozone and profile algorithm. Atmospheric Measurement Techniques, 2013, 6, 2533-2548.	3.1	121
30	Validation of ozone monthly zonal mean profiles obtained from the version 8.6 Solar Backscatter Ultraviolet algorithm. Atmospheric Chemistry and Physics, 2013, 13, 6887-6905.	4.9	38
31	A fast and sensitive new satellite SO ₂ retrieval algorithm based on principal component analysis: Application to the ozone monitoring instrument. Geophysical Research Letters, 2013, 40, 6314-6318.	4.0	165
32	A comparison of 40 years of SBUV measurements of column ozone with data from the Dobson/Brewer network. Journal of Geophysical Research D: Atmospheres, 2013, 118, 7370-7378.	3.3	63
33	The version 8.6 SBUV ozone data record: An overview. Journal of Geophysical Research D: Atmospheres, 2013, 118, 8032-8039.	3.3	104
34	Fast simulators for satellite cloud optical centroid pressure retrievals; evaluation of OMI cloud retrievals. Atmospheric Measurement Techniques, 2012, 5, 529-545.	3.1	44
35	Retrieval of Aerosol Optical Depth above Clouds from OMI Observations: Sensitivity Analysis and Case Studies. Journals of the Atmospheric Sciences, 2012, 69, 1037-1053.	1.7	118
36	A global climatology of tropospheric and stratospheric ozone derived from Aura OMI and MLS measurements. Atmospheric Chemistry and Physics, 2011, 11, 9237-9251.	4.9	168

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37	What do satellite backscatter ultraviolet and visible spectrometers see over snow and ice? A study of clouds and ozone using the A-train. Atmospheric Measurement Techniques, 2010, 3, 619-629.	3.1	18
38	Temperature diurnal variations (migrating tides) in the stratosphere and lower mesosphere based on measurements from SABER on TIMED. Journal of Geophysical Research, 2010, 115, .	3.3	26
39	A new interpretation of total column BrO during Arctic spring. Geophysical Research Letters, 2010, 37, .	4.0	116
40	Direct retrieval of sulfur dioxide amount and altitude from spaceborne hyperspectral UV measurements: Theory and application. Journal of Geophysical Research, 2010, 115, .	3.3	78
41	Aerosol Absorption Measurements from Space Observations by the Aura OMI Sensor. , 2009, , .		0
42	Interaction Between Particle Absorption and Rayleigh Scattering in the Near-UV. , 2009, , .		0
43	Recent biomass burning in the tropics and related changes in tropospheric ozone. Geophysical Research Letters, 2009, 36, .	4.0	68
44	Improving retrieval of volcanic sulfur dioxide from backscattered UV satellite observations. Geophysical Research Letters, 2009, 36, .	4.0	48
45	Role of Satellite Measurements in the Discovery of Stratospheric Ozone Depletion. , 2009, , 183-189.		1
46	Evaluation of the OMI cloud pressures derived from rotational Raman scattering by comparisons with other satellite data and radiative transfer simulations. Journal of Geophysical Research, 2008, 113, .	3.3	93
47	In-flight validation of Aura MLS ozone with CAFS partial ozone columns. Journal of Geophysical Research, 2008, 113, .	3.3	6
48	Comparing OMI TOMS and OMI DOAS total ozone column data. Journal of Geophysical Research, 2008, 113, .	3.3	62
49	Validation of SO ₂ retrievals from the Ozone Monitoring Instrument over NE China. Journal of Geophysical Research, 2008, 113, .	3.3	139
50	Comparison of Ozone Monitoring Instrument UV Aerosol Products with Aqua/Moderate Resolution Imaging Spectroradiometer and Multiangle Imaging Spectroradiometer observations in 2006. Journal of Geophysical Research, 2008, 113, .	3.3	94
51	Algorithm for the charge-coupled-device scanning actinic flux spectroradiometer ozone retrieval in support of the Aura satellite validation. Journal of Applied Remote Sensing, 2007, 1, 013540.	1.3	10
52	Effects of the 2004 El Niño on tropospheric ozone and water vapor. Geophysical Research Letters, 2007, 34, .	4.0	37
53	Intra-seasonal variability in tropospheric ozone and water vapor in the tropics. Geophysical Research Letters, 2007, 34, .	4.0	18
54	Aerosols and surface UV products from Ozone Monitoring Instrument observations: An overview. Journal of Geophysical Research, 2007, 112, .	3.3	685

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55	Retrieval of large volcanic SO ₂ columns from the Aura Ozone Monitoring Instrument: Comparison and limitations. Journal of Geophysical Research, 2007, 112, .	3.3	186
56	Early Data from Aura and Continuity from Uars and Toms. Space Science Reviews, 2007, 125, 417-430.	8.1	4
57	Total Ozone from Backscattered Ultraviolet Measurements. , 2007, , 48-63.		15
58	Observations over hurricanes from the ozone monitoring instrument. Geophysical Research Letters, 2006, 33, .	4.0	18
59	Long-term evolution of upper stratospheric ozone at selected stations of the Network for the Detection of Stratospheric Change (NDSC). Journal of Geophysical Research, 2006, 111, n/a-n/a.	3.3	79
60	Evaluation of Global Ozone Monitoring Experiment (GOME) ozone profiles from nine different algorithms. Journal of Geophysical Research, 2006, 111, .	3.3	38
61	Tropospheric ozone determined from Aura OMI and MLS: Evaluation of measurements and comparison with the Global Modeling Initiative's Chemical Transport Model. Journal of Geophysical Research, 2006, 111, .	3.3	293
62	Recent results from the Ozone Monitoring Instrument (OMI) on EOS Aura. , 2006, , .		3
63	Band residual difference algorithm for retrieval of SO ₂ from the aura ozone monitoring instrument (OMI). IEEE Transactions on Geoscience and Remote Sensing, 2006, 44, 1259-1266.	6.3	253
64	Overview of the EOS aura mission. IEEE Transactions on Geoscience and Remote Sensing, 2006, 44, 1066-1074.	6.3	345
65	Science objectives of the ozone monitoring instrument. IEEE Transactions on Geoscience and Remote Sensing, 2006, 44, 1199-1208.	6.3	439
66	Vertical Structure of the Anomalous 2002 Antarctic Ozone Hole. Journals of the Atmospheric Sciences, 2005, 62, 801-811.	1.7	18
67	Aerosol ultraviolet absorption experiment (2002 to 2004), part 1: ultraviolet multifilter rotating shadowband radiometer calibration and intercomparison with CIMEL sunphotometers. Optical Engineering, 2005, 44, 041004.	1.0	34
68	Aerosol ultraviolet absorption experiment (2002 to 2004), part 2: absorption optical thickness, refractive index, and single scattering albedo. Optical Engineering, 2005, 44, 041005.	1.0	57
69	Comparison and covalidation of ozone anomalies and variability observed in SBLUV(I2) and Umkehr northern midlatitude ozone profile estimates. Geophysical Research Letters, 2005, 32, .	4.0	16
70	Total Ozone Mapping Spectrometer measurements of aerosol absorption from space: Comparison to SAFARI 2000 ground-based observations. Journal of Geophysical Research, 2005, 110, .	3.3	91
71	Description and sensitivity analysis of a limb scattering ozone retrieval algorithm. Journal of Geophysical Research, 2005, 110, .	3.3	28
72	A 25-year data record of atmospheric ozone in the Pacific from Total Ozone Mapping Spectrometer (TOMS) cloud slicing: Implications for ozone trends in the stratosphere and troposphere. Journal of Geophysical Research, 2005, 110, .	3.3	65

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73	New Umkehr ozone profile retrieval algorithm optimized for climatological studies. Geophysical Research Letters, 2005, 32, .	4.0	51
74	Errors resulting from assuming opaque Lambertian clouds in TOMS ozone retrieval. Journal of Quantitative Spectroscopy and Radiative Transfer, 2004, 85, 337-365.	2.3	25
75	Retrieval of cloud pressure and oceanic chlorophyll content using Raman scattering in GOME ultraviolet spectra. Journal of Geophysical Research, 2004, 109, .	3.3	53
76	Improving total column ozone retrievals by using cloud pressures derived from Raman scattering in the UV. Geophysical Research Letters, 2004, 31, .	4.0	23
77	Measuring aerosol UV absorption optical thickness by combining use of shadowband and almucantar techniques. , 2004, , .		2
78	Derivation of tropospheric column ozone from the Earth Probe TOMS/GOES co-located data sets using the cloud slicing technique. Journal of Atmospheric and Solar-Terrestrial Physics, 2003, 65, 1127-1137.	1.6	13
79	Atmospheric products from the ozone monitoring instrument (OMI). , 2003, 5151, 619.		26
80	Goddard UV aerosol absorption closure experiment (2002-03). , 2003, 5156, 54.		1
81	Version 2 total ozone mapping spectrometer ultraviolet algorithm: problems and enhancements. Optical Engineering, 2002, 41, 3028.	1.0	41
82	<title>Comparisons between ground measurements of UV irradiance 290 to 380nm and TOMS UV estimates over Moscow for 1979-2000</title>. , 2002, , .		2
83	Comparisons between ground measurements of broadband ultraviolet irradiance (300 to 380 nm) and total ozone mapping spectrometer ultraviolet estimates at Moscow from 1979 to 2000. Optical Engineering, 2002, 41, 3070.	1.0	28
84	<title>Version 2 TOMS UV algorithm: problems and enhancements</title>. , 2002, 4482, 82.		8
85	Tropical tropospheric ozone: Implications for dynamics and biomass burning. Journal of Geophysical Research, 2002, 107, ACH 3-1.	3.3	77
86	Ocean Raman scattering in satellite backscatter UV measurements. Geophysical Research Letters, 2002, 29, 18-1-18-4.	4.0	45
87	Photochemical Activity and Solar Ultraviolet Radiation (PAUR) Modulation Factors: An overview of the project. Journal of Geophysical Research, 2002, 107, PAU 1-1.	3.3	81
88	Aerosol properties from EP-TOMS near UV observations. Advances in Space Research, 2002, 29, 1771-1780.	2.6	23
89	Spectral band calibration of the Total Ozone Mapping Spectrometer (TOMS) using a tunable laser technique. , 2000, , .		4
90	O3 profiles retrieved from limb scatter measurements: Theory. Geophysical Research Letters, 2000, 27, 2601-2604.	4.0	101

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91	Nasa's Experience in Deriving Total Ozone from Satellites. , 2000, , 293-299.		0
92	<title>Prelaunch tests for the calibration of Total Ozone Mapping Spectrometer (TOMS) flight model 5 (FM-5)</title>. , 1999, , .		1
93	<title>Joint Russian-USA Meteor-3M(2)/TOMS-5 mission</title>. , 1998, 3498, 458.		0
94	<title>Monitoring atmospheric ozone from space limb-scatter measurements</title>. , 1995, 2582, 88.		5
95	Rotational Raman scattering (Ring effect) in satellite backscatter ultraviolet measurements. Applied Optics, 1995, 34, 4513.	2.1	115
96	An assessment of the long-term drift in TOMS total ozone data, based on comparison with the Dobson Network. Geophysical Research Letters, 1988, 15, 1133-1136.	4.0	17
97	Seven years of total ozone from the TOMS instrument—a report on data quality. Geophysical Research Letters, 1986, 13, 1355-1358.	4.0	31
98	An assessment of the long-term drift in SBUV total ozone data, based on comparison with the Dobson network. Geophysical Research Letters, 1986, 13, 1359-1362.	4.0	39
99	Global pictures of the ozone field, from high altitudes, from DE-I. Advances in Space Research, 1982, 2, 183-188.	2.6	2
100	Air-Quality Study from Geostationary/High-Altitude Orbits. , 0, , 23-37.		0