

Pawan K Bhartia

List of Publications by Year in descending order

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citations

81900

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71685

76
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100
all docs

100
docs citations

100
times ranked

4518
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 1 | Aerosols and surface UV products from Ozone Monitoring Instrument observations: An overview. Journal of Geophysical Research, 2007, 112, . | 3.3 | 685 |
| 2 | Science objectives of the ozone monitoring instrument. IEEE Transactions on Geoscience and Remote Sensing, 2006, 44, 1199-1208. | 6.3 | 439 |
| 3 | Overview of the EOS aura mission. IEEE Transactions on Geoscience and Remote Sensing, 2006, 44, 1066-1074. | 6.3 | 345 |
| 4 | 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 |
| 5 | 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 |
| 6 | The Ozone Monitoring Instrument: overview of 14 years in space. Atmospheric Chemistry and Physics, 2018, 18, 5699-5745. | 4.9 | 259 |
| 7 | 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 |
| 8 | 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 |
| 9 | 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 |
| 10 | 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 |
| 11 | New Era of Air Quality Monitoring from Space: Geostationary Environment Monitoring Spectrometer (GEMS). Bulletin of the American Meteorological Society, 2020, 101, E1-E22. | 3.3 | 165 |
| 12 | Validation of SO ₂ retrievals from the Ozone Monitoring Instrument over NE China. Journal of Geophysical Research, 2008, 113, . | 3.3 | 139 |
| 13 | Solar Backscatter UV (SBUV) total ozone and profile algorithm. Atmospheric Measurement Techniques, 2013, 6, 2533-2548. | 3.1 | 121 |
| 14 | 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 |
| 15 | A new interpretation of total column BrO during Arctic spring. Geophysical Research Letters, 2010, 37, . | 4.0 | 116 |
| 16 | Rotational Raman scattering (Ring effect) in satellite backscatter ultraviolet measurements. Applied Optics, 1995, 34, 4513. | 2.1 | 115 |
| 17 | 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 |
| 18 | The version 8.6 SBUV ozone data record: An overview. Journal of Geophysical Research D: Atmospheres, 2013, 118, 8032-8039. | 3.3 | 104 |

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 19 | O3 profiles retrieved from limb scatter measurements: Theory. Geophysical Research Letters, 2000, 27, 2601-2604. | 4.0 | 101 |
| 20 | 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 |
| 21 | 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 |
| 22 | 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 |
| 23 | Impact of the ozone monitoring instrument row anomaly on the long-term record of aerosol products. Atmospheric Measurement Techniques, 2018, 11, 2701-2715. | 3.1 | 85 |
| 24 | 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 |
| 25 | 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 |
| 26 | 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 |
| 27 | Tropical tropospheric ozone: Implications for dynamics and biomass burning. Journal of Geophysical Research, 2002, 107, ACH 3-1. | 3.3 | 77 |
| 28 | Recent biomass burning in the tropics and related changes in tropospheric ozone. Geophysical Research Letters, 2009, 36, . | 4.0 | 68 |
| 29 | 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 |
| 30 | 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 |
| 31 | 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 |
| 32 | OMPS Limb Profiler instrument performance assessment. Journal of Geophysical Research D: Atmospheres, 2014, 119, 4399-4412. | 3.3 | 64 |
| 33 | 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 |
| 34 | Comparing OMI – TOMS and OMI – DOAS total ozone column data. Journal of Geophysical Research, 2008, 113, . | 3.3 | 62 |
| 35 | 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 |
| 36 | Variability and evolution of the midlatitude stratospheric aerosol budget from 22 years of ground-based lidar and satellite observations. Atmospheric Chemistry and Physics, 2017, 17, 1829-1845. | 4.9 | 55 |

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|----|---|-----|-----------|
| 37 | Retrieval of cloud pressure and oceanic chlorophyll content using Raman scattering in GOME ultraviolet spectra. <i>Journal of Geophysical Research</i> , 2004, 109, . | 3.3 | 53 |
| 38 | New Umkehr ozone profile retrieval algorithm optimized for climatological studies. <i>Geophysical Research Letters</i> , 2005, 32, . | 4.0 | 51 |
| 39 | Improving retrieval of volcanic sulfur dioxide from backscattered UV satellite observations. <i>Geophysical Research Letters</i> , 2009, 36, . | 4.0 | 48 |
| 40 | Ocean Raman scattering in satellite backscatter UV measurements. <i>Geophysical Research Letters</i> , 2002, 29, 18-1-18-4. | 4.0 | 45 |
| 41 | Fast simulators for satellite cloud optical centroid pressure retrievals; evaluation of OMI cloud retrievals. <i>Atmospheric Measurement Techniques</i> , 2012, 5, 529-545. | 3.1 | 44 |
| 42 | 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 |
| 43 | Version 2 total ozone mapping spectrometer ultraviolet algorithm: problems and enhancements. <i>Optical Engineering</i> , 2002, 41, 3028. | 1.0 | 41 |
| 44 | Measuring the Antarctic ozone hole with the new Ozone Mapping and Profiler Suite (OMPS). <i>Atmospheric Chemistry and Physics</i> , 2014, 14, 2353-2361. | 4.9 | 41 |
| 45 | Assessment and applications of NASA ozone data products derived from Aura OMI/MLS satellite measurements in context of the GM1 chemical transport model. <i>Journal of Geophysical Research D: Atmospheres</i> , 2014, 119, 5671-5699. | 3.3 | 40 |
| 46 | An assessment of the long-term drift in SBUV total ozone data, based on comparison with the Dobson network. <i>Geophysical Research Letters</i> , 1986, 13, 1359-1362. | 4.0 | 39 |
| 47 | Evaluation of Global Ozone Monitoring Experiment (GOME) ozone profiles from nine different algorithms. <i>Journal of Geophysical Research</i> , 2006, 111, . | 3.3 | 38 |
| 48 | Validation of ozone monthly zonal mean profiles obtained from the version 8.6 Solar Backscatter Ultraviolet algorithm. <i>Atmospheric Chemistry and Physics</i> , 2013, 13, 6887-6905. | 4.9 | 38 |
| 49 | Diurnal variations of stratospheric ozone measured by ground-based microwave remote sensing at the Mauna Loa NDACC site: measurement validation and GEOSCCM model comparison. <i>Atmospheric Chemistry and Physics</i> , 2014, 14, 7255-7272. | 4.9 | 38 |
| 50 | Effects of the 2004 El Niño on tropospheric ozone and water vapor. <i>Geophysical Research Letters</i> , 2007, 34, . | 4.0 | 37 |
| 51 | Aerosol ultraviolet absorption experiment (2002 to 2004), part 1: ultraviolet multifilter rotating shadowband radiometer calibration and intercomparison with CIMEL sunphotometers. <i>Optical Engineering</i> , 2005, 44, 041004. | 1.0 | 34 |
| 52 | Seven years of total ozone from the TOMS instrument—a report on data quality. <i>Geophysical Research Letters</i> , 1986, 13, 1355-1358. | 4.0 | 31 |
| 53 | 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. <i>Optical Engineering</i> , 2002, 41, 3070. | 1.0 | 28 |
| 54 | Description and sensitivity analysis of a limb scattering ozone retrieval algorithm. <i>Journal of Geophysical Research</i> , 2005, 110, . | 3.3 | 28 |

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|----|--|-----|-----------|
| 55 | Improvement of stratospheric aerosol extinction retrieval from OMPS/LP using a new aerosol model. Atmospheric Measurement Techniques, 2018, 11, 6495-6509. | 3.1 | 28 |
| 56 | Validation of ozone profile retrievals derived from the OMPS LP version 2.5 algorithm against correlative satellite measurements. Atmospheric Measurement Techniques, 2018, 11, 2837-2861. | 3.1 | 27 |
| 57 | Atmospheric products from the ozone monitoring instrument (OMI)., 2003, 5151, 619. | | 26 |
| 58 | 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 |
| 59 | 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 |
| 60 | Aerosol properties from EP-TOMS near UV observations. Advances in Space Research, 2002, 29, 1771-1780. | 2.6 | 23 |
| 61 | Improving total column ozone retrievals by using cloud pressures derived from Raman scattering in the UV. Geophysical Research Letters, 2004, 31, . | 4.0 | 23 |
| 62 | A new algorithm for detecting cloud height using OMPS/LP measurements. Atmospheric Measurement Techniques, 2016, 9, 1239-1246. | 3.1 | 22 |
| 63 | Interpreting SBUV smoothing errors: an example using the quasi-biennial oscillation. Atmospheric Measurement Techniques, 2013, 6, 2089-2099. | 3.1 | 21 |
| 64 | A cloud algorithm based on the O ₂ absorption band featuring an advanced spectral fitting method and the use of surface geometry-dependent Lambertian-equivalent reflectivity. Atmospheric Measurement Techniques, 2018, 11, 4093-4107. | 3.1 | 21 |
| 65 | Gauss-Seidel limb scattering (GSLs) radiative transfer model development in support of the Ozone Mapping and Profiler Suite (OMPS) limb profiler mission. Atmospheric Chemistry and Physics, 2015, 15, 3007-3020. | 4.9 | 19 |
| 66 | Vertical Structure of the Anomalous 2002 Antarctic Ozone Hole. Journals of the Atmospheric Sciences, 2005, 62, 801-811. | 1.7 | 18 |
| 67 | Observations over hurricanes from the ozone monitoring instrument. Geophysical Research Letters, 2006, 33, . | 4.0 | 18 |
| 68 | Intra-seasonal variability in tropospheric ozone and water vapor in the tropics. Geophysical Research Letters, 2007, 34, . | 4.0 | 18 |
| 69 | 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 |
| 70 | 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 |
| 71 | 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 |
| 72 | OMPS LP Observations of PSC Variability During the NH 2019-2020 Season. Geophysical Research Letters, 2020, 47, e2020GL090216. | 4.0 | 17 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 73 | Comparison and covalidation of ozone anomalies and variability observed in SBLIV(2) and Umkehr northern midlatitude ozone profile estimates. <i>Geophysical Research Letters</i> , 2005, 32, . | 4.0 | 16 |
| 74 | Total Ozone from Backscattered Ultraviolet Measurements. , 2007, , 48-63. | | 15 |
| 75 | A total ozoneâ€dependent ozone profile climatology based on ozonesondes and Aura MLS data. <i>Journal of Geophysical Research D: Atmospheres</i> , 2015, 120, 2537-2545. | 3.3 | 14 |
| 76 | Altitude registration of limb-scattered radiation. <i>Atmospheric Measurement Techniques</i> , 2017, 10, 167-178. | 3.1 | 14 |
| 77 | Derivation of tropospheric column ozone from the Earth Probe TOMS/GOES co-located data sets using the cloud slicing technique. <i>Journal of Atmospheric and Solar-Terrestrial Physics</i> , 2003, 65, 1127-1137. | 1.6 | 13 |
| 78 | 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 |
| 79 | 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 |
| 80 | 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 |
| 81 | Algorithm for the charge-coupled-device scanning actinic flux spectroradiometer ozone retrieval in support of the Aura satellite validation. <i>Journal of Applied Remote Sensing</i> , 2007, 1, 013540. | 1.3 | 10 |
| 82 | <title>Version 2 TOMS UV algorithm: problems and enhancements</title>. , 2002, 4482, 82. | | 8 |
| 83 | Inâ€flight validation of Aura MLS ozone with CAFS partial ozone columns. <i>Journal of Geophysical Research</i> , 2008, 113, . | 3.3 | 6 |
| 84 | 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 |
| 85 | <title>Monitoring atmospheric ozone from space limb-scatter measurements</title>. , 1995, 2582, 88. | | 5 |
| 86 | 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 |
| 87 | Spectral band calibration of the Total Ozone Mapping Spectrometer (TOMS) using a tunable laser technique. , 2000, , . | | 4 |
| 88 | Early Data from Aura and Continuity from Uars and Toms. <i>Space Science Reviews</i> , 2007, 125, 417-430. | 8.1 | 4 |
| 89 | Recent results from the Ozone Monitoring Instrument (OMI) on EOS Aura. , 2006, , . | | 3 |
| 90 | Global pictures of the ozone field, from high altitudes, from DE-I. <i>Advances in Space Research</i> , 1982, 2, 183-188. | 2.6 | 2 |

| # | ARTICLE | IF | CITATIONS |
|-----|---|----|-----------|
| 91 | <title>Comparisons between ground measurements of UV irradiance 290 to 380nm and TOMS UV estimates over Moscow for 1979-2000</title>. , 2002, , . | | 2 |
| 92 | Measuring aerosol UV absorption optical thickness by combining use of shadowband and almucantar techniques. , 2004, , . | | 2 |
| 93 | Goddard UV aerosol absorption closure experiment (2002-03). , 2003, 5156, 54. | | 1 |
| 94 | Role of Satellite Measurements in the Discovery of Stratospheric Ozone Depletion. , 2009, , 183-189. | | 1 |
| 95 | <title>Prelaunch tests for the calibration of Total Ozone Mapping Spectrometer (TOMS) flight model 5 (FM-5)</title>. , 1999, , . | | 1 |
| 96 | <title>Joint Russian-USA Meteor-3M(2)/TOMS-5 mission</title>. , 1998, 3498, 458. | | 0 |
| 97 | Aerosol Absorption Measurements from Space Observations by the Auraâ€œOMI Sensor. , 2009, , . | | 0 |
| 98 | Interaction Between Particle Absorption and Rayleigh Scattering in the Nearâ€œUV. , 2009, , . | | 0 |
| 99 | Nasaâ€œ™s Experience in Deriving Total Ozone from Satellites. , 2000, , 293-299. | | 0 |
| 100 | Air-Quality Study from Geostationary/High-Altitude Orbits. , 0, , 23-37. | | 0 |