Shobha Kondragunta

List of Publications by Year
in descending order

105 papers	3,441 citations	136950 32 h-index	149698 56 g-index
113 all docs	113 docs citations	113 times ranked	3578 citing authors

#	Article	IF	Citations
1	The Impact of Aerosols on Solar Ultraviolet Radiation and Photochemical Smog. Science, 1997, 278, 827-830.	12.6	578
2	Suomiâ€NPP VIIRS aerosol algorithms and data products. Journal of Geophysical Research D: Atmospheres, 2013, 118, 12,673.	3.3	202
3	Spatiotemporal Associations between GOES Aerosol Optical Depth Retrievals and Ground-Level PM_{2.5}. Environmental Science & Technology, 2008, 42, 5800-5806.	10.0	139
4	Description and Verification of the NOAA Smoke Forecasting System: The 2007 Fire Season. Weather and Forecasting, 2009, 24, 361-378.	1.4	123
5	Evaluation of VIIRS, GOCI, and MODIS Collection 6â€AOD retrievals against ground sunphotometer observations over East Asia. Atmospheric Chemistry and Physics, 2016, 16, 1255-1269.	4.9	110
6	Preliminary evaluation of Sâ€NPP VIIRS aerosol optical thickness. Journal of Geophysical Research D: Atmospheres, 2014, 119, 3942-3962.	3.3	108
7	Toward aerosol optical depth retrievals over land from GOES visible radiances: determining surface reflectance. International Journal of Remote Sensing, 2005, 26, 4097-4116.	2.9	105
8	GOES Aerosol/Smoke Product (GASP) over North America: Comparisons to AERONET and MODIS observations. Journal of Geophysical Research, 2007, 112, .	3.3	82
9	Estimating forest biomass in the USA using generalized allometric models and MODIS land products. Geophysical Research Letters, 2006, 33, .	4.0	79
10	Nearâ€realâ€time global biomass burning emissions product from geostationary satellite constellation. Journal of Geophysical Research, 2012, 117, .	3.3	72
11	Near real time monitoring of biomass burning particulate emissions (PM2.5) across contiguous United States using multiple satellite instruments. Atmospheric Environment, 2008, 42, 6959-6972.	4.1	69
12	Comparison of Fire Radiative Power Estimates From VIIRS and MODIS Observations. Journal of Geophysical Research D: Atmospheres, 2018, 123, 4545-4563.	3.3	69
13	Validation and expected error estimation of Suomiâ€NPP VIIRS aerosol optical thickness and Ã…ngstrÃ¶m exponent with AERONET. Journal of Geophysical Research D: Atmospheres, 2016, 121, 7139-7160.	3.3	68
14	Temporal and spatial variability in biomass burned areas across the USA derived from the GOES fire product. Remote Sensing of Environment, 2008, 112, 2886-2897.	11.0	64
15	Estimation of biomass-burning emissions by fusing the fire radiative power retrievals from polar-orbiting and geostationary satellites across the conterminous United States. Atmospheric Environment, 2019, 211, 274-287.	4.1	64
16	Comparison of GOES and MODIS Aerosol Optical Depth (AOD) to Aerosol Robotic Network (AERONET) AOD and IMPROVE PM_{2.5}Mass at Bondville, Illinois. Journal of the Air and Waste Management Association, 2009, 59, 1082-1091.	1.9	61
17	Stratosphere-troposphere exchange in a midlatitude mesoscale convective complex: 2. Numerical simulations. Journal of Geophysical Research, 1996, 101, 6837-6851.	3.3	59
18	NAQFC Developmental Forecast Guidance for Fine Particulate Matter (PM2.5). Weather and Forecasting, 2017, 32, 343-360.	1.4	57

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19	Development and analysis of a 12-year daily 1-km forest fire dataset across North America from NOAA/AVHRR data. Remote Sensing of Environment, 2007, 108, 198-208.	11.0	56
20	Intercomparison of near-real-time biomass burning emissions estimates constrained by satellite fire data. Journal of Applied Remote Sensing, 2008, 2, 021504.	1.3	56
21	Remote sensing of aerosol and radiation from geostationary satellites. Advances in Space Research, 2008, 41, 1882-1893.	2.6	51
22	Sensitivity of mesoscale modeling of smoke direct radiative effect to the emission inventory: a case study in northern sub-Saharan African region. Environmental Research Letters, 2014, 9, 075002.	5.2	51
23	Evaluation of the multiâ€angle implementation of atmospheric correction (MAIAC) aerosol algorithm through intercomparison with VIIRS aerosol products and AERONET. Journal of Geophysical Research D: Atmospheres, 2017, 122, 3005-3022.	3.3	48
24	An enhanced VIIRS aerosol optical thickness (AOT) retrieval algorithm over land using a global surface reflectance ratio database. Journal of Geophysical Research D: Atmospheres, 2016, 121, 10,717.	3.3	47
25	A preliminary evaluation of GOES-16 active fire product using Landsat-8 and VIIRS active fire data, and ground-based prescribed fire records. Remote Sensing of Environment, 2020, 237, 111600.	11.0	45
26	Dust aerosol index (DAI) algorithm for MODIS. Journal of Geophysical Research D: Atmospheres, 2014, 119, 4770-4792.	3.3	41
27	A cohesive total ozone data set from the SBUV(/2) satellite system. Journal of Geophysical Research, 2002, 107, ACH 11-1-ACH 11-8.	3.3	40
28	A multi-angle aerosol optical depth retrieval algorithm for geostationary satellite data over the United States. Atmospheric Chemistry and Physics, 2011, 11, 11977-11991.	4.9	40
29	Interannual variation in biomass burning and fire seasonality derived from geostationary satellite data across the contiguous United States from 1995 to 2011. Journal of Geophysical Research G: Biogeosciences, 2014, 119, 1147-1162.	3.0	38
30	Comparison of octadecyl-bonded alumina and silica for reversed-phase high-performance liquid chromatography. Journal of Chromatography A, 1990, 505, 307-318.	3.7	37
31	Evaluation and intercomparison of wildfire smoke forecasts from multiple modeling systems for the 2019 Williams Flats fire. Atmospheric Chemistry and Physics, 2021, 21, 14427-14469.	4.9	37
32	Air Quality Forecast Verification Using Satellite Data. Journal of Applied Meteorology and Climatology, 2008, 47, 425-442.	1.5	33
33	Examining the Economic and Environmental Impacts of COVID-19 Using Earth Observation Data. Remote Sensing, 2021, 13, 5.	4.0	33
34	Estimation of Biomass Burned Areas Using Multiple-Satellite-Observed Active Fires. IEEE Transactions on Geoscience and Remote Sensing, 2011, 49, 4469-4482.	6.3	31
35	Investigation of the Fire Radiative Energy Biomass Combustion Coefficient: A Comparison of Polar and Geostationary Satellite Retrievals Over the Conterminous United States. Journal of Geophysical Research G: Biogeosciences, 2018, 123, 722-739.	3.0	28
36	Dominance of Wildfires Impact on Air Quality Exceedances During the 2020 Recordâ€Breaking Wildfire Season in the United States. Geophysical Research Letters, 2021, 48, e2021GL094908.	4.0	28

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37	Reduction of aerosol absorption in Beijing since 2007 from MODIS and AERONET. Geophysical Research Letters, 2011, 38, n/a-n/a.	4.0	27
38	Applications of the Three-Dimensional Air Quality System to Western U.S. Air Quality: IDEA, Smog Blog, Smog Stories, AirQuest, and the Remote Sensing Information Gateway. Journal of the Air and Waste Management Association, 2009, 59, 980-989.	1.9	25
39	Impact of the 2008 Global Recession on air quality over the United States: Implications for surface ozone levels from changes in NO_x emissions. Geophysical Research Letters, 2016, 43, 9280-9288.	4.0	25
40	Burned Area Comparisons Between Prescribed Burning Permits in Southeastern United States and Two Satelliteâ€Derived Products. Journal of Geophysical Research D: Atmospheres, 2018, 123, 4746-4757.	3.3	25
41	Comparison of Octadecyl-Bonded Alumina and Other Stationary Phases for Lipophilicity Estimation by High Performance Liquid Chromatography. Journal of Liquid Chromatography and Related Technologies, 1990, 13, 3111-3131.	1.0	23
42	Improving GOES Advanced Baseline Imager (ABI) aerosol optical depth (AOD) retrievals using an empirical bias correction algorithm. Atmospheric Measurement Techniques, 2020, 13, 5955-5975.	3.1	23
43	Ensemble PM_{2.5} Forecasting During the 2018 Camp Fire Event Using the HYSPLIT Transport and Dispersion Model. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2020JD032768.	3.3	21
44	Daily and Hourly Surface PM2.5 Estimation From Satellite AOD. Earth and Space Science, 2021, 8, e2020EA001599.	2.6	21
45	The implementation of NEMS GFS Aerosol Component (NGAC) Version 2.0 for global multispecies forecasting at NOAA/NCEP â€“ PartÂ1: Model descriptions. Geoscientific Model Development, 2018, 11, 2315-2332.	3.6	20
46	Biomass Burning in Africa: An Investigation of Fire Radiative Power Missed by MODIS Using the 375 m VIIRS Active Fire Product. Remote Sensing, 2020, 12, 1561.	4.0	19
47	Vertical Structure of the Anomalous 2002 Antarctic Ozone Hole. Journals of the Atmospheric Sciences, 2005, 62, 801-811.	1.7	18
48	Satellite Remote Sensing and Mesoscale Modeling of the 2007 Georgia/Florida Fires. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2009, 2, 163-175.	4.9	18
49	Regional air pollution and its radiative forcing: Studies with a single-column chemical and radiation transport model. Journal of Geophysical Research, 2001, 106, 28751-28770.	3.3	17
50	Use of hourly Geostationary Operational Environmental Satellite (GOES) fire emissions in a Community Multiscale Air Quality (CMAQ) model for improving surface particulate matter predictions. Journal of Geophysical Research, 2011, 116, .	3.3	17
51	Aerosol optical depth (AOD) retrieval using simultaneous GOES-East and GOES-West reflected radiances over the western United States. Atmospheric Measurement Techniques, 2013, 6, 471-486.	3.1	17
52	Mobilization of health professions students during the COVID-19 pandemic. Seminars in Perinatology, 2020, 44, 151276.	2.5	15
53	An evaluation of advanced baseline imager fire radiative power based wildfire emissions using carbon monoxide observed by the Tropospheric Monitoring Instrument across the conterminous United States. Environmental Research Letters, 2020, 15, 094049.	5.2	15
54	Nighttime smoke aerosol optical depth over U.S. rural areas: First retrieval from VIIRS moonlight observations. Remote Sensing of Environment, 2021, 267, 112717.	11.0	15

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55	Analysis of the relationship between MODIS aerosol optical depth and PM 2.5 in the summertime US. , 2006, , .		14
56	Inverse modeling of fire emissions constrained by smoke plume transport using HYSPLIT dispersion model and geostationary satellite observations. Atmospheric Chemistry and Physics, 2020, 20, 10259-10277.	4.9	14
57	Quantifying Carbon Monoxide Emissions on the Scale of Large Wildfires. Geophysical Research Letters, 2022, 49, .	4.0	14
58	First retrieval of absorbing aerosol height over dark target using TROPOMI oxygen B band: Algorithm development and application for surface particulate matter estimates. Remote Sensing of Environment, 2021, 265, 112674.	11.0	13
59	A Geostationary Instrument Simulator for Aerosol Observing System Simulation Experiments. Atmosphere, 2019, 10, 2.	2.3	12
60	Air Quality Applications of ABI Aerosol Products from the GOES-R Series. , 2020, , 203-217.		12
61	Application of geostationary satellite and high-resolution meteorology data in estimating hourly PM2.5 levels during the Camp Fire episode in California. Remote Sensing of Environment, 2022, 271, 112890.	11.0	12
62	COVIDâ€19 Induced Fingerprints of a New Normal Urban Air Quality in the United States. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2021JD034797.	3.3	11
63	Tracking Smoke from a Prescribed Fire and Its Impacts on Local Air Quality Using Temporally Resolved GOES-16 ABI Aerosol Optical Depth (AOD). Journal of Atmospheric and Oceanic Technology, 2021, 38, 963-976.	1.3	10
64	Highly anomalous fire emissions from the 2019â€“2020 Australian bushfires. Environmental Research Communications, 2021, 3, 105005.	2.3	10
65	Dust transport model validation using satellite- and ground-based methods in the southwestern United States. , 2006, 6299, 96.		8
66	Monitoring the Impacts of Wildfires on Forest Ecosystems and Public Health in the Exo-Urban Environment Using High-Resolution Satellite Aerosol Products from the Visible Infrared Imaging Radiometer Suite (VIIRS). Environmental Health Insights, 2015, 9s2, EHI.S19590.	1.7	8
67	Development and evaluation of the Aerosol Forecast Member in the National Center for Environment Prediction (NCEP)'s Global Ensemble Forecast System (GEFS-Aerosols v1). Geoscientific Model Development, 2022, 15, 5337-5369.	3.6	8
68	Retrieval of physical properties of particulate emission from animal feeding operations using three-wavelength elastic lidar measurements. , 2006, , .		7
69	Use of multiple satellite sensors in NOAA's operational near real-time fire and smoke detection and characterization program. Proceedings of SPIE, 2008, , .	0.8	7
70	Total ozone determinations from National Oceanic and Atmospheric Administration operational solar backscattered ultraviolet 2 instrument observations: An update. Journal of Geophysical Research, 2001, 106, 17471-17478.	3.3	6
71	Hourly Mapping of the Layer Height of Thick Smoke Plumes Over the Western U.S. in 2020 Severe Fire Season. Frontiers in Remote Sensing, 2021, 2, .	3.5	6
72	Pronounced increases in nitrogen emissions and deposition due to the historic 2020 wildfires in the western U.S.. Science of the Total Environment, 2022, 839, 156130.	8.0	6

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73	Toward a US National Air Quality Forecast Capability: Current and Planned Capabilities. NATO Security Through Science Series C: Environmental Security, 2008, , 226-234.	0.1	5
74	Improving predictability of high-ozone episodes through dynamic boundary conditions, emission refresh and chemical data assimilation during the Long Island Sound Tropospheric Ozone Study (LISTOS) field campaign. Atmospheric Chemistry and Physics, 2021, 21, 16531-16553.	4.9	5
75	Exceptional events monitoring using S-NPP VIIRS aerosol products. , 2017, , .		4
76	Evaluating a fire smoke simulation algorithm in the National Air Quality Forecast Capability (NAQFC) by using multiple observation data sets during the Southeast Nexus (SENEX) field campaign. Geoscientific Model Development, 2020, 13, 2169-2184.	3.6	4
77	Potential ozone production following convective transport based on future emission scenarios. Atmospheric Environment, 1996, 30, 667-672.	4.1	3
78	Screening for snow/snowmelt in SNPP VIIRS aerosol optical depth algorithm. Atmospheric Measurement Techniques, 2018, 11, 5813-5825.	3.1	3
79	Evaluation of VIIRS dust detection algorithms over land. Journal of Applied Remote Sensing, 2018, 12, 1.	1.3	3
80	3D-AQS: a three-dimensional air quality system. , 2006, , .		2
81	Monitoring fire and smoke emissions with the hazard mapping system. , 2006, 6412, 71.		2
82	Vegetation burned areas derived from multiple satellite-based active fires. , 2008, , .		2
83	Development of IDEA product for GOES-R aerosol data. Proceedings of SPIE, 2009, , .	0.8	2
84	Meteorologists Track Wildfires Using Satellite Smoke Images. Eos, 2017, , .	0.1	2
85	Correlation between aerosol optical depth derived from CIMEL sunphotometer and surface particulate concentration in Northern and Southern Taiwan. , 2006, , .		1
86	A hybrid thermal video and FTIR spectrometer system for rapidly locating and characterizing gas leaks. , 2006, , .		1
87	Near-infrared fiber optics gas sensor for remote sensing of CH 4 gas in coal mines. , 2006, , .		1
88	Tropospheric infrared mapping spectrometers (TIMS) for air quality measurements. , 2006, , .		1
89	Application of lidar in the observation of atmospheric particulate pollutants in Taipei. , 2006, , .		1
90	Non-Meteorological Application of New Generation Geostatinary Satellites. , 2019, , .		1

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91	Disseminating Scientific Results in the Age of Rapid Communication. Eos, 2020, 101, .	0.1	1
92	Application of satellite data for three-dimensional monitoring of PM 2.5 formation and transport in San Joaquin Valley, California. , 2006, , .		1
93	NOAA-ISRO joint science projects on Earth observation system science, technology, and applications for societal benefits. , 2006, , .		0
94	Aerosol absorption characteristics over 23 AERONET locations. , 2006, 6299, 51.		0
95	Estimation of dust loading and height using MODIS, AIRS, and MAERI data. , 2006, 6299, 59.		0
96	Aerosol lidar and MODIS satellite comparisons for future aerosol loading forecast. , 2006, , .		0
97	Minimum harmonic detection order for Rayleigh resolution in modulation spectroscopy. , 2006, , .		0
98	Influence of sanddust activities in the Hexi Corridor on the PM 10 concentration in Lanzhou and its assessment. , 2006, 6299, 148.		0
99	Airborne hyperspectral data collection with the UMBC VNIR sensor. , 2006, 6299, 155.		0
100	Data assimilation of carbon monoxide in the troposphere. , 2006, 6299, 84.		0
101	Hardware and software combined optical Earth observation atmospheric correction. , 2006, 6299, 163.		0
102	Chapter 5.2 Aerosol forecast over the Great Lakes for a February 2005 episode. Developments in Environmental Science, 2007, , 492-502.	0.5	0
103	The impact of satellite-derived biomass burning emission estimates on air quality. Proceedings of SPIE, 2008, , .	0.8	0
104	JPSS Atmospheric Composition Products for Environmental Monitoring and Applications. , 2019, , .		0
105	Implications of a New Normal Urban Air Quality. , 2021, , .		0