

Xiaoguang Xu

List of Publications by Year in descending order

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48
papers

1,454
citations

279701

23
h-index

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37
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62
all docs

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docs citations

62
times ranked

1505
citing authors

#	ARTICLE	IF	CITATIONS
1	A numerical testbed for remote sensing of aerosols, and its demonstration for evaluating retrieval synergy from a geostationary satellite constellation of GEO-CAPE and GOES-R. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2014, 146, 510-528.	1.1	94
2	Constraints on aerosol sources using GEOS-Chem adjoint and MODIS radiances, and evaluation with multisensor (OMI, MISR) data. <i>Journal of Geophysical Research D: Atmospheres</i> , 2013, 118, 6396-6413.	1.2	89
3	Potential application of VIIRS Day/Night Band for monitoring nighttime surface PM 2.5 air quality from space. <i>Atmospheric Environment</i> , 2016, 124, 55-63.	1.9	89
4	Improved algorithm for MODIS satellite retrievals of aerosol optical thickness over land in dusty atmosphere: Implications for air quality monitoring in China. <i>Remote Sensing of Environment</i> , 2010, 114, 2575-2583.	4.6	86
5	Top-down estimate of dust emissions through integration of MODIS and MISR aerosol retrievals with the GEOS-Chem adjoint model. <i>Geophysical Research Letters</i> , 2012, 39, .	1.5	84
6	Passive remote sensing of altitude and optical depth of dust plumes using the oxygen A and B bands: First results from EPIC/DSCOVR at Lagrange-1 point. <i>Geophysical Research Letters</i> , 2017, 44, 7544-7554.	1.5	69
7	Retrieval of aerosol microphysical properties from AERONET photopolarimetric measurements: 1. Information content analysis. <i>Journal of Geophysical Research D: Atmospheres</i> , 2015, 120, 7059-7078.	1.2	65
8	Retrieval of aerosol microphysical properties from AERONET photopolarimetric measurements: 2. A new research algorithm and case demonstration. <i>Journal of Geophysical Research D: Atmospheres</i> , 2015, 120, 7079-7098.	1.2	61
9	Monthly top-down NO _x emissions for China (2005-2012): A hybrid inversion method and trend analysis. <i>Journal of Geophysical Research D: Atmospheres</i> , 2017, 122, 4600-4625.	1.2	59
10	Quantifying contributions of natural and anthropogenic dust emission from different climatic regions. <i>Atmospheric Environment</i> , 2018, 191, 94-104.	1.9	56
11	An algorithm for hyperspectral remote sensing of aerosols: 1. Development of theoretical framework. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2016, 178, 400-415.	1.1	45
12	Polarimetric remote sensing in oxygen A and B bands: sensitivity study and information content analysis for vertical profile of aerosols. <i>Atmospheric Measurement Techniques</i> , 2016, 9, 2077-2092.	1.2	43
13	An algorithm for hyperspectral remote sensing of aerosols: 2. Information content analysis for aerosol parameters and principal components of surface spectra. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2017, 192, 14-29.	1.1	40
14	Detecting layer height of smoke aerosols over vegetated land and water surfaces via oxygen absorption bands: hourly results from EPIC/DSCOVR in deep space. <i>Atmospheric Measurement Techniques</i> , 2019, 12, 3269-3288.	1.2	40
15	Evaluation of MODIS Deep Blue Aerosol Algorithm in Desert Region of East Asia: Ground Validation and Intercomparison. <i>Journal of Geophysical Research D: Atmospheres</i> , 2017, 122, 10,357.	1.2	39
16	Angular dependence of aerosol information content in CAPI/TanSat observation over land: Effect of polarization and synergy with A-train satellites. <i>Remote Sensing of Environment</i> , 2017, 196, 163-177.	4.6	38
17	Improving Remote Sensing of Aerosol Microphysical Properties by Near-Infrared Polarimetric Measurements Over Vegetated Land: Information Content Analysis. <i>Journal of Geophysical Research D: Atmospheres</i> , 2018, 123, 2215-2243.	1.2	35
18	Detecting nighttime fire combustion phase by hybrid application of visible and infrared radiation from Suomi NPP VIIRS. <i>Remote Sensing of Environment</i> , 2020, 237, 111466.	4.6	32

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19	Retrieving Aerosol Characteristics From the PACE Mission, Part 1: Ocean Color Instrument. <i>Frontiers in Earth Science</i> , 2019, 7, .	0.8	31
20	A new approach for monthly updates of anthropogenic sulfur dioxide emissions from space: Application to China and implications for air quality forecasts. <i>Geophysical Research Letters</i> , 2016, 43, 9931-9938.	1.5	29
21	Efficient multi-angle polarimetric inversion of aerosols and ocean color powered by a deep neural network forward model. <i>Atmospheric Measurement Techniques</i> , 2021, 14, 4083-4110.	1.2	27
22	How Do Aerosol Properties Affect the Temporal Variation of MODIS AOD Bias in Eastern China?. <i>Remote Sensing</i> , 2017, 9, 800.	1.8	26
23	Evaluation of Aerosol Optical Depth and Aerosol Models from VIIRS Retrieval Algorithms over North China Plain. <i>Remote Sensing</i> , 2017, 9, 432.	1.8	25
24	MODIS Retrieval of Aerosol Optical Depth over Turbid Coastal Water. <i>Remote Sensing</i> , 2017, 9, 595.	1.8	25
25	Characterization of Aerosol Type Over East Asia by 4.4 km MISR Product: First Insight and General Performance. <i>Journal of Geophysical Research D: Atmospheres</i> , 2020, 125, e2019JD031909.	1.2	20
26	Retrieval of aerosol properties from Airborne Hyper-Angular Rainbow Polarimeter (AirHARP) observations during ACEPOL 2017. <i>Atmospheric Measurement Techniques</i> , 2020, 13, 5207-5236.	1.2	20
27	Development of a nighttime shortwave radiative transfer model for remote sensing of nocturnal aerosols and fires from VIIRS. <i>Remote Sensing of Environment</i> , 2020, 241, 111727.	4.6	18
28	An algorithm for hyperspectral remote sensing of aerosols: 3. Application to the GEO-TASO data in KORUS-AQ field campaign. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2020, 253, 107161.	1.1	16
29	Inverse modeling of SO ₂ and NO _x emissions over China using multisensor satellite data – Part 1: Formulation and sensitivity analysis. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 6631-6650.	1.9	16
30	Nighttime smoke aerosol optical depth over U.S. rural areas: First retrieval from VIIRS moonlight observations. <i>Remote Sensing of Environment</i> , 2021, 267, 112717.	4.6	15
31	A Tale of Two Dust Storms: analysis of a complex dust event in the Middle East. <i>Atmospheric Measurement Techniques</i> , 2019, 12, 5101-5118.	1.2	14
32	First retrieval of absorbing aerosol height over dark target using TROPOMI oxygen B band: Algorithm development and application for surface particulate matter estimates. <i>Remote Sensing of Environment</i> , 2021, 265, 112674.	4.6	13
33	Adaptive Data Screening for Multi-Angle Polarimetric Aerosol and Ocean Color Remote Sensing Accelerated by Deep Learning. <i>Frontiers in Remote Sensing</i> , 2021, 2, .	1.3	13
34	Sense size-dependent dust loading and emission from space using reflected solar and infrared spectral measurements: An observation system simulation experiment. <i>Journal of Geophysical Research D: Atmospheres</i> , 2017, 122, 8233-8254.	1.2	12
35	The Aerosol Characterization from Polarimeter and Lidar (ACEPOL) airborne field campaign. <i>Earth System Science Data</i> , 2020, 12, 2183-2208.	3.7	10
36	Assessing remote polarimetric measurement sensitivities to aerosol emissions using the geos-chem adjoint model. <i>Atmospheric Measurement Techniques</i> , 2013, 6, 3441-3457.	1.2	9

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37	A pilot study of shortwave spectral fingerprints of smoke aerosols above liquid clouds. Journal of Quantitative Spectroscopy and Radiative Transfer, 2018, 221, 38-50.	1.1	9
38	Passive Remote Sensing of Aerosol Height. , 2018, , 1-22.		8
39	UNL-VRM, A Testbed for Aerosol Remote Sensing: Model Developments and Applications. Springer Series in Light Scattering, 2019, , 1-69.	1.8	8
40	Can multi-angular polarimetric measurements in the oxygen-A and B bands improve the retrieval of aerosol vertical distribution?. Journal of Quantitative Spectroscopy and Radiative Transfer, 2021, 270, 107679.	1.1	7
41	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, .	1.3	6
42	Constraining Aerosol Phase Function Using Dual-View Geostationary Satellites. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2021JD035209.	1.2	3
43	Direct Retrieval of NO ₂ Vertical Columns from UV-Vis (390-495nm) Spectral Radiances Using a Neural Network. Journal of Remote Sensing, 2022, 2022, .	3.2	2
44	An algorithm for simultaneous inversion of aerosol properties and surface reflectance from airborne GeoTASO hyperspectral data. , 2015, , .		1
45	Wavelet analysis of quasi-3-year temperature oscillations in China in last 50 years, and predicted changes in the next 20 years. Sciences in Cold and Arid Regions, 2013, 5, 755.	0.1	0
46	An algorithm for hyperspectral remote sensing of aerosols. , 2016, , .		0
47	Using AIRS hyperspectral observations to optimize dust refractive index in infrared spectrum. , 2019, , .		0
48	Detecting Layer Height of Smoke and Dust Aerosols Over Vegetated Land and Water Surfaces via Oxygen Absorption Bands. , 2020, , .		0