Andrew M Sayer

List of Publications by Year
in descending order

80 papers	10,022 citations	87888 38 h-index	64796 79 g-index
130 all docs	130 docs citations	130 times ranked	7855 citing authors

#	Article	IF	Citations
1	The Collection 6 MODIS aerosol products over land and ocean. Atmospheric Measurement Techniques, 2013, 6, 2989-3034.	3.1	1,612
2	Global Estimates of Fine Particulate Matter using a Combined Geophysical-Statistical Method with Information from Satellites, Models, and Monitors. Environmental Science & Technology, 2016, 50, 3762-3772.	10.0	871
3	Enhanced Deep Blue aerosol retrieval algorithm: The second generation. Journal of Geophysical Research D: Atmospheres, 2013, 118, 9296-9315.	3.3	803
4	Satellite-Based Spatiotemporal Trends in PM _{2.5} Concentrations: China, 2004â€“2013. Environmental Health Perspectives, 2016, 124, 184-192.	6.0	565
5	MODIS Collection 6 aerosol products: Comparison between Aqua's eâ€Deep Blue, Dark Target, and â€œmergedâ€•data sets, and usage recommendations. Journal of Geophysical Research D: Atmospheres, 2014, 119, 13,965.	3.3	478
6	Validation and uncertainty estimates for MODIS Collection 6 â€œDeep Blueâ€•aerosol data. Journal of Geophysical Research D: Atmospheres, 2013, 118, 7864-7872.	3.3	445
7	Global Estimates and Long-Term Trends of Fine Particulate Matter Concentrations (1998â€“2018). Environmental Science & Technology, 2020, 54, 7879-7890.	10.0	431
8	Aerosol indirect effects â€“ general circulation model intercomparison and evaluation with satellite data. Atmospheric Chemistry and Physics, 2009, 9, 8697-8717.	4.9	418
9	Global and regional trends of aerosol optical depth over land and ocean using SeaWiFS measurements from 1997 to 2010. Atmospheric Chemistry and Physics, 2012, 12, 8037-8053.	4.9	319
10	Multi-decadal aerosol variations from 1980 to 2009: a perspective from observations and a global model. Atmospheric Chemistry and Physics, 2014, 14, 3657-3690.	4.9	240
11	Monthly Global Estimates of Fine Particulate Matter and Their Uncertainty. Environmental Science & Technology, 2021, 55, 15287-15300.	10.0	211
12	Aerosol remote sensing over land: A comparison of satellite retrievals using different algorithms and instruments. Atmospheric Research, 2007, 85, 372-394.	4.1	196
13	An overview of regional experiments on biomass burning aerosols and related pollutants in Southeast Asia: From BASE-ASIA and the Dongsha Experiment to 7-SEAS. Atmospheric Environment, 2013, 78, 1-19.	4.1	166
14	A sea surface reflectance model for (A)ATSR, and application to aerosol retrievals. Atmospheric Measurement Techniques, 2010, 3, 813-838.	3.1	154
15	Validation, Stability, and Consistency of MODIS Collection 6.1 and VIIRS Version 1 Deep Blue Aerosol Data Over Land. Journal of Geophysical Research D: Atmospheres, 2019, 124, 4658-4688.	3.3	140
16	The inter-comparison of major satellite aerosol retrieval algorithms using simulated intensity and polarization characteristics of reflected light. Atmospheric Measurement Techniques, 2010, 3, 909-932.	3.1	136
17	VIIRS Deep Blue Aerosol Products Over Land: Extending the EOS Longâ€Term Aerosol Data Records. Journal of Geophysical Research D: Atmospheres, 2019, 124, 4026-4053.	3.3	128
18	Global and regional evaluation of over-land spectral aerosol optical depth retrievals from SeaWiFS. Atmospheric Measurement Techniques, 2012, 5, 1761-1778.	3.1	115

#	Article	IF	Citations
19	SeaWiFS Ocean Aerosol Retrieval (SOAR): Algorithm, validation, and comparison with other data sets. Journal of Geophysical Research, 2012, 117, .	3.3	108
20	Effect of MODIS Terra radiometric calibration improvements on Collection 6 Deep Blue aerosol products: Validation and Terra/Aqua consistency. Journal of Geophysical Research D: Atmospheres, 2015, 120, 12,157.	3.3	99
21	Merging regional and global aerosol optical depth records from major available satellite products. Atmospheric Chemistry and Physics, 2020, 20, 2031-2056.	4.9	98
22	Anion binding by catecholsâ€"an NMR, optical and electrochemical study. Organic and Biomolecular Chemistry, 2006, 4, 1760-1767.	2.8	91
23	Validation of GRASP algorithm product from POLDER/PARASOL data and assessment of multi-angular polarimetry potential for aerosol monitoring. Earth System Science Data, 2020, 12, 3573-3620.	9.9	90
24	A pure marine aerosol model, for use in remote sensing applications. Journal of Geophysical Research, 2012, 117, .	3.3	77
25	AERONET-based models of smoke-dominated aerosol near source regions and transported over oceans, and implications for satellite retrievals of aerosol optical depth. Atmospheric Chemistry and Physics, 2014, 14, 11493-11523.	4.9	75
26	Satellite Ocean Aerosol Retrieval (SOAR) Algorithm Extension to Sâ€NPP VIIRS as Part of the â€œDeep Blueâ€• Aerosol Project. Journal of Geophysical Research D: Atmospheres, 2018, 123, 380-400.	3.3	72
27	Retrieving nearâ€global aerosol loading over land and ocean from AVHRR. Journal of Geophysical Research D: Atmospheres, 2017, 122, 9968-9989.	3.3	71
28	The GRAPE aerosol retrieval algorithm. Atmospheric Measurement Techniques, 2009, 2, 679-701.	3.1	69
29	Interactions between biomass-burning aerosols and clouds over Southeast Asia: Current status, challenges, and perspectives. Environmental Pollution, 2014, 195, 292-307.	7.5	68
30	Cloud retrievals from satellite data using optimal estimation: evaluation and application to ATSR. Atmospheric Measurement Techniques, 2012, 5, 1889-1910.	3.1	65
31	From BASE-ASIA toward 7-SEAS: A satellite-surface perspective of boreal spring biomass-burning aerosols and clouds in Southeast Asia. Atmospheric Environment, 2013, 78, 20-34.	4.1	64
32	A review and framework for the evaluation of pixel-level uncertainty estimates in satellite aerosol remote sensing. Atmospheric Measurement Techniques, 2020, 13, 373-404.	3.1	59
33	Effects of COVID-19 lockdowns on fine particulate matter concentrations. Science Advances, 2021, 7, .	10.3	53
34	Intercomparison of satellite dust retrieval products over the west African Sahara during the Fennec campaign in June 2011. Remote Sensing of Environment, 2013, 136, 99-116.	11.0	52
35	Satellite-Surface Perspectives of Air Quality and Aerosol-Cloud Effects on the Environment: An Overview of 7-SEAS/BASELInE. Aerosol and Air Quality Research, 2016, 16, 2581-2602.	2.1	52
36	Extending â€œDeep Blueâ€•aerosol retrieval coverage to cases of absorbing aerosols above clouds: Sensitivity analysis and first case studies. Journal of Geophysical Research D: Atmospheres, 2016, 121, 4830-4854.	3.3	49

#	Article	IF	Citations
37	Observations of the Interaction and Transport of Fine Mode Aerosols With Cloud and/or Fog in Northeast Asia From Aerosol Robotic Network and Satellite Remote Sensing. Journal of Geophysical Research D: Atmospheres, 2018, 123, 5560-5587.	3.3	49
38	Oxford-RAL Aerosol and Cloud (ORAC): aerosol retrievals from satellite radiometers. , 2009, , 193-225.		49
39	Direct and semi-direct radiative forcing of biomass-burning aerosols over the southeast AtlanticÂ(SEA) and its sensitivity to absorbing properties: a regional climate modeling study. Atmospheric Chemistry and Physics, 2020, 20, 13191-13216.	4.9	49
40	AERONET Remotely Sensed Measurements and Retrievals of Biomass Burning Aerosol Optical Properties During the 2015 Indonesian Burning Season. Journal of Geophysical Research D: Atmospheres, 2019, 124, 4722-4740.	3.3	40
41	An AeroComâ€“AeroSat study: intercomparison of satellite AOD datasets for aerosol model evaluation. Atmospheric Chemistry and Physics, 2020, 20, 12431-12457.	4.9	40
42	Evaluation of NASA Deep Blue/SOAR aerosol retrieval algorithms applied to AVHRR measurements. Journal of Geophysical Research D: Atmospheres, 2017, 122, 9945-9967.	3.3	39
43	Global retrieval of ATSR cloud parameters and evaluation (GRAPE): dataset assessment. Atmospheric Chemistry and Physics, 2011, 11, 3913-3936.	4.9	38
44	Some implications of sampling choices on comparisons between satellite and model aerosol optical depth fields. Atmospheric Chemistry and Physics, 2010, 10, 10705-10716.	4.9	37
45	Intercomparison of desert dust optical depth from satellite measurements. Atmospheric Measurement Techniques, 2012, 5, 1973-2002.	3.1	37
46	Use of MODIS-derived surface reflectance data in the ORAC-AATSR aerosol retrieval algorithm: Impact of differences between sensor spectral response functions. Remote Sensing of Environment, 2012, 116, 177-188.	11.0	35
47	Validation of the GRAPE single view aerosol retrieval for ATSR-2 and insights into the long term global AOD trend over the ocean. Atmospheric Chemistry and Physics, 2010, 10, 4849-4866.	4.9	34
48	Validation of SOAR VIIRS Overâ€Water Aerosol Retrievals and Context Within the Global Satellite Aerosol Data Record. Journal of Geophysical Research D: Atmospheres, 2018, 123, 13,496.	3.3	34
49	AERONETâ€Based Nonspherical Dust Optical Models and Effects on the VIIRS Deep Blue/SOAR Over Water Aerosol Product. Journal of Geophysical Research D: Atmospheres, 2017, 122, 10384-10401.	3.3	33
50	Development of an operational land water mask for MODIS Collection 6, and influence on downstream data products. International Journal of Digital Earth, 2017, 10, 207-218.	3.9	32
51	How should we aggregate data? Methods accounting for the numerical distributions, with an assessment of aerosol optical depth. Atmospheric Chemistry and Physics, 2019, 19, 15023-15048.	4.9	32
52	Seven years of global retrieval of cloud properties using space-borne data of GOME. Atmospheric Measurement Techniques, 2012, 5, 1551-1570.	3.1	31
53	Effect of wind speed on aerosol optical depth over remote oceans, based on data from the Maritime Aerosol Network. Atmospheric Measurement Techniques, 2012, 5, 377-388.	3.1	30
54	Estimating marine aerosol particle volume and number from Maritime Aerosol Network data. Atmospheric Chemistry and Physics, 2012, 12, 8889-8909.	4.9	29

#	Article	IF	Citations
55	Can Asian dust trigger phytoplankton blooms in the oligotrophic northern South China Sea?. Geophysical Research Letters, 2012, 39, .	4.0	29
56	Satellite observation of pollutant emissions from gas flaring activities near the Arctic. Atmospheric Environment, 2016, 133, 1-11.	4.1	29
57	Cross-calibration of S-NPP VIIRS moderate-resolution reflective solar bands against MODIS Aqua over dark water scenes. Atmospheric Measurement Techniques, 2017, 10, 1425-1444.	3.1	29
58	Retrieving the height of smoke and dust aerosols by synergistic use of VIIRS, OMPS, and CALIOP observations. Journal of Geophysical Research D: Atmospheres, 2015, 120, 8372-8388.	3.3	27
59	Systematic satellite observations of the impact of aerosols from passive volcanic degassing on local cloud properties. Atmospheric Chemistry and Physics, 2014, 14, 10601-10618.	4.9	26
60	Simulation of the transport, vertical distribution, optical properties and radiative impact of smoke aerosols with the ALADIN regional climate model during the ORACLES-2016 and LASIC experiments. Atmospheric Chemistry and Physics, 2019, 19, 4963-4990.	4.9	25
61	Automatic detection of ship tracks in ATSR-2 satellite imagery. Atmospheric Chemistry and Physics, 2009, 9, 1899-1905.	4.9	23
62	Reconciling satellite-derived atmospheric properties with fine-resolution land imagery: Insights for atmospheric correction. Journal of Geophysical Research, 2011, 116, .	3.3	22
63	Implications of MODIS bow-tie distortion on aerosol optical depth retrievals, and techniques for mitigation. Atmospheric Measurement Techniques, 2015, 8, 5277-5288.	3.1	21
64	The Sensitivity of SeaWiFS Ocean Color Retrievals to Aerosol Amount and Type. Journal of Atmospheric and Oceanic Technology, 2016, 33, 1185-1209.	1.3	19
65	Harnessing remote sensing to address critical science questions on ocean-atmosphere interactions. Elementa, 2018, 6, .	3.2	18
66	Two decades observing smoke above clouds in the south-eastern Atlantic Ocean: Deep Blue algorithm updates and validation with ORACLES field campaign data. Atmospheric Measurement Techniques, 2019, 12, 3595-3627.	3.1	15
67	How Long Is Too Long? Variogram Analysis of AERONET Data to Aid Aerosol Validation and Intercomparison Studies. Earth and Space Science, 2020, 7, e2020EA001290.	2.6	14
68	In-Situ and Remotely-Sensed Observations of Biomass Burning Aerosols at Doi Ang Khang, Thailand during 7-SEAS/BASELInE 2015. Aerosol and Air Quality Research, 2016, 16, 2786-2801.	2.1	13
69	A geometry-dependent surface Lambertian-equivalent reflectivity product for UVâ€“Vis retrievals â€“ Part 2: Evaluation over open ocean. Atmospheric Measurement Techniques, 2019, 12, 6749-6769.	3.1	13
70	Evaluating the Height of Biomass Burning Smoke Aerosols Retrieved from Synergistic Use of Multiple Satellite Sensors over Southeast Asia. Aerosol and Air Quality Research, 2016, 16, 2831-2842.	2.1	13
71	Adaptive Data Screening for Multi-Angle Polarimetric Aerosol and Ocean Color Remote Sensing Accelerated by Deep Learning. Frontiers in Remote Sensing, 2021, 2, .	3.5	13
72	Retrieval of aerosol optical depth under thin cirrus from MODIS: Application to an ocean algorithm. Journal of Geophysical Research D: Atmospheres, 2013, 118, 10,111.	3.3	12

#	Article	IF	Citations
73	Quantifying the response of the ORAC aerosol optical depth retrieval for MSG SEVIRI to aerosol model assumptions. Journal of Geophysical Research, 2011, 116, .	3.3	11
74	Aerosol Layer Height With Enhanced Spectral Coverage Achieved by Synergy Between VIIRS and OMPS-NM Measurements. IEEE Geoscience and Remote Sensing Letters, 2021, 18, 949-953.	3.1	9
75	Evaluation of Novel NASA Moderate Resolution Imaging Spectroradiometer and Visible Infrared Imaging Radiometer Suite Aerosol Products and Assessment of Smoke Height Boundary Layer Ratio During Extreme Smoke Events in the Western USA. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD034180.	3.3	9
76	GEWEX cloud assessment: A review. AIP Conference Proceedings, 2013, , .	0.4	7
77	COMMIT in 7-SEAS/BASELInE: Operation of and Observations from a Novel, Mobile Laboratory for Measuring In-Situ Properties of Aerosols and Gases. Aerosol and Air Quality Research, 2016, 16, 2728-2741.	2.1	5
78	Optimal estimation framework for ocean color atmospheric correction and pixel-level uncertainty quantification. Applied Optics, 2022, 61, 6453.	1.8	5
79	Coupled Aerosol-Cloud Systems over Northern Vietnam during 7-SEAS/BASELInE: A Radar and Modeling Perspective. Aerosol and Air Quality Research, 2016, 16, 2768-2785.	2.1	4
80	Current and Future Perspectives of Aerosol Research at NASA Goddard Space Flight Center. Bulletin of the American Meteorological Society, 2014, 95, ES203-ES207.	3.3	0