

Richard A Ferrare

List of Publications by Year in descending order

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63
papers

5,371
citations

126907

33
h-index

118850

62
g-index

65
all docs

65
docs citations

65
times ranked

4316
citing authors

#	ARTICLE	IF	CITATIONS
1	The CALIPSO Automated Aerosol Classification and Lidar Ratio Selection Algorithm. Journal of Atmospheric and Oceanic Technology, 2009, 26, 1994-2014.	1.3	820
2	The MERRA-2 Aerosol Reanalysis, 1980 Onward. Part I: System Description and Data Assimilation Evaluation. Journal of Climate, 2017, 30, 6823-6850.	3.2	739
3	Airborne High Spectral Resolution Lidar for profiling aerosol optical properties. Applied Optics, 2008, 47, 6734.	2.1	430
4	Aerosol classification using airborne High Spectral Resolution Lidar measurements – methodology and examples. Atmospheric Measurement Techniques, 2012, 5, 73-98.	3.1	407
5	Raman lidar system for the measurement of water vapor and aerosols in the Earth's atmosphere. Applied Optics, 1992, 31, 3068.	2.1	363
6	The Saharan Air Layer and the Fate of African Easterly Waves – NASA's AMMA Field Study of Tropical Cyclogenesis. Bulletin of the American Meteorological Society, 2009, 90, 1137-1156.	3.3	119
7	Assessment of the CALIPSO Lidar 532 nm attenuated backscatter calibration using the NASA LaRC airborne High Spectral Resolution Lidar. Atmospheric Chemistry and Physics, 2011, 11, 1295-1311.	4.9	111
8	The North Atlantic Aerosol and Marine Ecosystem Study (NAAMES): Science Motive and Mission Overview. Frontiers in Marine Science, 2019, 6, .	2.5	111
9	Automated Retrievals of Water Vapor and Aerosol Profiles from an Operational Raman Lidar. Journal of Atmospheric and Oceanic Technology, 2002, 19, 37-50.	1.3	110
10	NASA LaRC airborne high spectral resolution lidar aerosol measurements during MILAGRO: observations and validation. Atmospheric Chemistry and Physics, 2009, 9, 4811-4826.	4.9	100
11	An overview of the ORACLES (ObseRvations of Aerosols above CLouds and their intEractionS) project: aerosol-cloud-radiation interactions in the southeast Atlantic basin. Atmospheric Chemistry and Physics, 2021, 21, 1507-1563.	4.9	97
12	An accuracy assessment of the CALIOP/CALIPSO version 2/version 3 daytime aerosol extinction product based on a detailed multi-sensor, multi-platform case study. Atmospheric Chemistry and Physics, 2011, 11, 3981-4000.	4.9	94
13	Observations of Saharan dust microphysical and optical properties from the Eastern Atlantic during NAMMA airborne field campaign. Atmospheric Chemistry and Physics, 2011, 11, 723-740.	4.9	80
14	Airborne Multiwavelength High Spectral Resolution Lidar (HSRL-2) observations during TCAP 2012: vertical profiles of optical and microphysical properties of a smoke/urban haze plume over the northeastern coast of the US. Atmospheric Measurement Techniques, 2014, 7, 3487-3496.	3.1	79
15	Separating mixtures of aerosol types in airborne High Spectral Resolution Lidar data. Atmospheric Measurement Techniques, 2014, 7, 419-436.	3.1	79
16	Aerosol and cloud interaction observed from high spectral resolution lidar data. Journal of Geophysical Research, 2008, 113, .	3.3	76
17	Raman lidar measurements of aerosol extinction and backscattering: 2. Derivation of aerosol real refractive index, single-scattering albedo, and humidification factor using Raman lidar and aircraft size distribution measurements. Journal of Geophysical Research, 1998, 103, 19673-19689.	3.3	74
18	Simultaneous polarimeter retrievals of microphysical aerosol and ocean color parameters from the –MAPP algorithm with comparison to high-spectral-resolution lidar aerosol and ocean products. Applied Optics, 2018, 57, 2394.	1.8	73

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19	Evaluation of daytime measurements of aerosols and water vapor made by an operational Raman lidar over the Southern Great Plains. <i>Journal of Geophysical Research</i> , 2006, 111, .	3.3	71
20	Comparison of mixed layer heights from airborne high spectral resolution lidar, ground-based measurements, and the WRF-Chem model during CalNex and CARES. <i>Atmospheric Chemistry and Physics</i> , 2014, 14, 5547-5560.	4.9	70
21	Looking through the haze: evaluating the CALIPSO level 2 aerosol optical depth using airborne high spectral resolution lidar data. <i>Atmospheric Measurement Techniques</i> , 2014, 7, 4317-4340.	3.1	69
22	Intercomparison of biomass burning aerosol optical properties from in situ and remote-sensing instruments in ORACLES-2016. <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 9181-9208.	4.9	69
23	Observations of rapid aerosol optical depth enhancements in the vicinity of polluted cumulus clouds. <i>Atmospheric Chemistry and Physics</i> , 2014, 14, 11633-11656.	4.9	58
24	Information content and sensitivity of the CO_2 lidar measurement system for aerosol microphysical retrievals. <i>Atmospheric Measurement Techniques</i> , 2016, 9, 5555-5574.		54
25	Aerosol-Cloud-Meteorology Interaction Airborne Field Investigations: Using Lessons Learned from the U.S. West Coast in the Design of ACTIVATE off the U.S. East Coast. <i>Bulletin of the American Meteorological Society</i> , 2019, 100, 1511-1528.	3.3	51
26	Calibration of a high spectral resolution lidar using a Michelson interferometer, with data examples from ORACLES. <i>Applied Optics</i> , 2018, 57, 6061.	1.8	51
27	An evaluation of CALIOP/CALIPSO's aerosol above-cloud detection and retrieval capability over North America. <i>Journal of Geophysical Research D: Atmospheres</i> , 2014, 119, 230-244.	3.3	49
28	HSRL-2 aerosol optical measurements and microphysical retrievals vs. airborne in situ measurements during DISCOVER-AQ 2013: an intercomparison study. <i>Atmospheric Chemistry and Physics</i> , 2017, 17, 7229-7243.	4.9	46
29	Comparison between lidar and nephelometer measurements of aerosol hygroscopicity at the Southern Great Plains Atmospheric Radiation Measurement site. <i>Journal of Geophysical Research</i> , 2006, 111, .	3.3	45
30	Evaluation of surface and upper air fine scale WRF meteorological modeling of the May and June 2010 CalNex period in California. <i>Atmospheric Environment</i> , 2013, 80, 299-309.	4.1	41
31	Use of in situ cloud condensation nuclei, extinction, and aerosol size distribution measurements to test a method for retrieving cloud condensation nuclei profiles from surface measurements. <i>Journal of Geophysical Research</i> , 2006, 111, .	3.3	39
32	Regional characteristics of the relationship between columnar AOD and surface PM 2.5 : Application of lidar aerosol extinction profiles over Baltimore-Washington Corridor during DISCOVER-AQ. <i>Atmospheric Environment</i> , 2015, 101, 338-349.	4.1	38
33	Retrieval of aerosol parameters from multiwavelength lidar: investigation of the underlying inverse mathematical problem. <i>Applied Optics</i> , 2016, 55, 2188.	2.1	36
34	Bay Breeze and Sea Breeze Circulation Impacts on the Planetary Boundary Layer and Air Quality From an Observed and Modeled DISCOVER-AQ Texas Case Study. <i>Journal of Geophysical Research D: Atmospheres</i> , 2019, 124, 7359-7378.	3.3	35
35	Atmospheric Research Over the Western North Atlantic Ocean Region and North American East Coast: A Review of Past Work and Challenges Ahead. <i>Journal of Geophysical Research D: Atmospheres</i> , 2020, 125, e2019JD031626.	3.3	35
36	LASE Measurements of Water Vapor, Aerosol, and Cloud Distributions in Saharan Air Layers and Tropical Disturbances. <i>Journals of the Atmospheric Sciences</i> , 2010, 67, 1026-1047.	1.7	34

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37	The Two-Column Aerosol Project: Phase I Overview and impact of elevated aerosol layers on aerosol optical depth. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016, 121, 336-361.	3.3	33
38	Aerosol Direct Radiative Effect Sensitivity Analysis. <i>Journal of Climate</i> , 2020, 33, 6119-6139.	3.2	32
39	Modeling the smoky troposphere of the southeast Atlantic: a comparison to ORACLES airborne observations from September of 2016. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 11491-11526.	4.9	32
40	Coupled Retrieval of Liquid Water Cloud and Above-Cloud Aerosol Properties Using the Airborne Multiangle SpectroPolarimetric Imager (AirMSPI). <i>Journal of Geophysical Research D: Atmospheres</i> , 2018, 123, 3175-3204.	3.3	28
41	Aerosol retrievals from different polarimeters during the ACEPOL campaign using a common retrieval algorithm. <i>Atmospheric Measurement Techniques</i> , 2020, 13, 553-573.	3.1	28
42	Intercomparison of airborne multi-angle polarimeter observations from the Polarimeter Definition Experiment. <i>Applied Optics</i> , 2019, 58, 650.	1.8	28
43	Arrange and average algorithm for the retrieval of aerosol parameters from multiwavelength high-spectral-resolution lidar/Raman lidar data. <i>Applied Optics</i> , 2014, 53, 7252.	2.1	27
44	Application of aerosol hygroscopicity measured at the Atmospheric Radiation Measurement Program's Southern Great Plains site to examine composition and evolution. <i>Journal of Geophysical Research</i> , 2006, 111, .	3.3	26
45	Biomass Burning Plumes in the Vicinity of the California Coast: Airborne Characterization of Physicochemical Properties, Heating Rates, and Spatiotemporal Features. <i>Journal of Geophysical Research D: Atmospheres</i> , 2018, 123, 13,560.	3.3	25
46	The impact of lidar detection sensitivity on assessing aerosol direct radiative effects. <i>Geophysical Research Letters</i> , 2017, 44, 9059-9067.	4.0	24
47	On the Limits of CALIOP for Constraining Modeled Free Tropospheric Aerosol. <i>Geophysical Research Letters</i> , 2018, 45, 9260-9266.	4.0	22
48	Modeled and observed properties related to the direct aerosol radiative effect of biomass burning aerosol over the southeastern Atlantic. <i>Atmospheric Chemistry and Physics</i> , 2022, 22, 1-46.	4.9	22
49	Combined Atmospheric and Ocean Profiling from an Airborne High Spectral Resolution Lidar. <i>EPJ Web of Conferences</i> , 2016, 119, 22001.	0.3	21
50	Reducing uncertainties in satellite estimates of aerosol-cloud interactions over the subtropical ocean by integrating vertically resolved aerosol observations. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 7167-7177.	4.9	17
51	Saharan dust, convective lofting, aerosol enhancement zones, and potential impacts on ice nucleation in the tropical upper troposphere. <i>Journal of Geophysical Research D: Atmospheres</i> , 2017, 122, 8833-8851.	3.3	16
52	Retrieval of Cloud Condensation Nuclei Number Concentration Profiles From Lidar Extinction and Backscatter Data. <i>Journal of Geophysical Research D: Atmospheres</i> , 2018, 123, 6082-6098.	3.3	16
53	Aerosol and cloud microphysics covariability in the northeast Pacific boundary layer estimated with ship-based and satellite remote sensing observations. <i>Journal of Geophysical Research D: Atmospheres</i> , 2017, 122, 2403-2418.	3.3	15
54	Analysis of the Planetary Boundary Layer Height during DISCOVER-AQ Baltimore-Washington, D.C., with Lidar and High-Resolution WRF Modeling. <i>Journal of Applied Meteorology and Climatology</i> , 2018, 57, 2679-2696.	1.5	15

#	ARTICLE	IF	CITATIONS
55	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
56	Vertically resolved separation of dust and other aerosol types by a new lidar depolarization method. Optics Express, 2015, 23, 14095.	3.4	13
57	Novel aerosol extinction coefficients and lidar ratios over the ocean from CALIPSO's "CloudSat: evaluation and global statistics. Atmospheric Measurement Techniques, 2019, 12, 2201-2217.	3.1	13
58	Ambient Aerosol Hygroscopic Growth From Combined Raman Lidar and HSRL. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2019JD031708.	3.3	13
59	Spatiotemporal Heterogeneity of Aerosol and Cloud Properties Over the Southeast Atlantic: An Observational Analysis. Geophysical Research Letters, 2021, 48, e2020GL091469.	4.0	13
60	Seasonal updraft speeds change cloud droplet number concentrations in low-level clouds over the western North Atlantic. Atmospheric Chemistry and Physics, 2022, 22, 8299-8319.	4.9	9
61	Raman lidar profiling of water vapor and aerosols over the Southern Great Plains. , 2001, , .		6
62	Polarimeter + Lidar's "Derived Aerosol Particle Number Concentration. Frontiers in Remote Sensing, 2022, 3, .	3.5	5
63	Spatiotemporal changes in aerosol properties by hygroscopic growth and impacts on radiative forcing and heating rates during DISCOVER-AQ 2011. Atmospheric Chemistry and Physics, 2021, 21, 12021-12048.	4.9	4