

Peter N Francis

List of Publications by Year in descending order

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Version: 2024-02-01

48
papers

2,779
citations

218381

26
h-index

214527

47
g-index

57
all docs

57
docs citations

57
times ranked

2468
citing authors

#	ARTICLE	IF	CITATIONS
1	Improved Measurements of the Ice Water Content in Cirrus Using a Total-Water Probe. Journal of Atmospheric and Oceanic Technology, 1995, 12, 410-414.	0.5	327
2	Radiative properties and direct radiative effect of Saharan dust measured by the C-130 aircraft during SHADE: 1. Solar spectrum. Journal of Geophysical Research, 2003, 108, .	3.3	320
3	The mean physical and optical properties of regional haze dominated by biomass burning aerosol measured from the C-130 aircraft during SAFARI 2000. Journal of Geophysical Research, 2003, 108, n/a-n/a.	3.3	212
4	Measurement and modeling of the Saharan dust radiative impact: Overview of the Saharan Dust Experiment (SHADE). Journal of Geophysical Research, 2003, 108, .	3.3	161
5	Retrieval of physical properties of volcanic ash using Meteosat: A case study from the 2010 Eyjafjallajökull eruption. Journal of Geophysical Research, 2012, 117, .	3.3	127
6	An observational and theoretical study of the radiative properties of cirrus: Some results from ICE'89. Quarterly Journal of the Royal Meteorological Society, 1994, 120, 809-848.	1.0	118
7	Optical properties and direct radiative effect of Saharan dust: A case study of two Saharan dust outbreaks using aircraft data. Journal of Geophysical Research, 2001, 106, 18417-18430.	3.3	110
8	Comparison of aerosol size distributions, radiative properties, and optical depths determined by aircraft observations and Sun photometers during SAFARI 2000. Journal of Geophysical Research, 2003, 108, n/a-n/a.	3.3	107
9	Characteristics of mixed-phase clouds. I: Lidar, radar and aircraft observations from CLARE'98. Quarterly Journal of the Royal Meteorological Society, 2003, 129, 2089-2116.	1.0	101
10	Comparison of observed and modeled direct aerosol forcing during TARFOX. Journal of Geophysical Research, 1999, 104, 2279-2287.	3.3	77
11	On the radiative properties of cirrus cloud at solar and thermal wavelengths: A test of model consistency using high-resolution airborne radiance measurements. Quarterly Journal of the Royal Meteorological Society, 2004, 130, 763-778.	1.0	76
12	The Role of Ice Particle Shapes and Size Distributions in the Single Scattering Properties of Cirrus Clouds. Journals of the Atmospheric Sciences, 1998, 55, 2874-2883.	0.6	66
13	A case study of the radiative forcing of persistent contrails evolving into contrail-induced cirrus. Journal of Geophysical Research, 2009, 114, .	3.3	65
14	The retrieval of cirrus cloud properties from aircraft multi-spectral reflectance measurements during EUCREX'93. Quarterly Journal of the Royal Meteorological Society, 1998, 124, 1273-1291.	1.0	61
15	Simulated volcanic ash imagery: A method to compare NAME ash concentration forecasts with SEVIRI imagery for the Eyjafjallajökull eruption in 2010. Journal of Geophysical Research, 2012, 117, .	3.3	61
16	Some Aircraft Observations of the Scattering Properties of Ice Crystals. Journals of the Atmospheric Sciences, 1995, 52, 1142-1154.	0.6	57
17	Aircraft measurements of the solar and infrared radiative properties of cirrus and their dependence on ice crystal shape. Journal of Geophysical Research, 1999, 104, 31685-31695.	3.3	57
18	Remote sensing of cloud top pressure/height from SEVIRI: analysis of ten current retrieval algorithms. Atmospheric Measurement Techniques, 2014, 7, 2839-2867.	1.2	54

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19	Sensitivity analysis of dispersion modeling of volcanic ash from Eyjafjallajökull in May 2010. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	48
20	Monitoring Satellite Radiance Biases Using NWP Models. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2013, 51, 1124-1138.	2.7	47
21	A New Generation of Tropical Cyclone Size Measurements from Space. <i>Bulletin of the American Meteorological Society</i> , 2017, 98, 2367-2385.	1.7	47
22	Testing the coherence of cirrus microphysical and bulk properties retrieved from dual-viewing multispectral satellite radiance measurements. <i>Journal of Geophysical Research</i> , 1999, 104, 31673-31683.	3.3	46
23	Cloud detection in Meteosat Second Generation imagery at the Met Office. <i>Meteorological Applications</i> , 2011, 18, 307-323.	0.9	37
24	Cloud effective particle size and water content profile retrievals using combined lidar and radar observations: 2. Comparison with IR radiometer and in situ measurements of ice clouds. <i>Journal of Geophysical Research</i> , 2001, 106, 27449-27464.	3.3	30
25	Comparison of Saharan dust aerosol optical depths retrieved using aircraft mounted Pyranometers and 2-channel AVHRR algorithms. <i>Geophysical Research Letters</i> , 2001, 28, 2393-2396.	1.5	29
26	Variational assimilation of cloud fraction in the operational Met Office Unified Model. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2011, 137, 1963-1974.	1.0	29
27	A study of the absorption and extinction properties of hexagonal ice columns and plates in random and preferred orientation, using exact T-matrix theory and aircraft observations of cirrus. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2001, 70, 505-518.	1.1	27
28	A consistent set of single-scattering properties for cirrus cloud: tests using radiance measurements from a dual-viewing multi-wavelength satellite-based instrument. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2003, 79-80, 549-567.	1.1	27
29	A scattering phase function for ice cloud: Tests of applicability using aircraft and satellite multi-wavelength radiance measurements of cirrus. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2001, 127, 2395-2416.	1.0	27
30	Observation of absorbing aerosols above clouds over the south-east Atlantic Ocean from the geostationary satellite SEVIRI – Part 1: Method description and sensitivity. <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 9595-9611.	1.9	26
31	On the question of enhanced absorption of solar radiation by clouds. <i>Quarterly Journal of the Royal Meteorological Society</i> , 1997, 123, 419-434.	1.0	25
32	Aircraft observations and modeling of sky radiance distributions from aerosol during TARFOX. <i>Journal of Geophysical Research</i> , 1999, 104, 2309-2319.	3.3	20
33	Detection of the Grämsvötn 2011 volcanic eruption plumes using infrared satellite measurements. <i>Atmospheric Science Letters</i> , 2014, 15, 321-327.	0.8	19
34	Generalized Bayesian cloud detection for satellite imagery. Part 1: Technique and validation for night-time imagery over land and sea. <i>International Journal of Remote Sensing</i> , 2010, 31, 2573-2594.	1.3	18
35	Uncertainty in two-channel infrared remote sensing retrievals of a well-characterised volcanic ash cloud. <i>Bulletin of Volcanology</i> , 2015, 77, 1.	1.1	18
36	Short-wave radiative effects of biomass burning aerosol during SAFARI2000. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2004, 130, 1423-1447.	1.0	16

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37	Generalized Bayesian cloud detection for satellite imagery. Part 2: Technique and validation for daytime imagery. <i>International Journal of Remote Sensing</i> , 2010, 31, 2595-2621.	1.3	15
38	Comparison of SEVIRI-Derived Cloud Occurrence Frequency and Cloud-Top Height with A-Train Data. <i>Remote Sensing</i> , 2017, 9, 24.	1.8	9
39	Boundaries and internal structure of mixed phase clouds as deduced from ground-based 95-GHz radar and airborne lidar measurements. <i>Physics and Chemistry of the Earth</i> , 2000, 25, 889-895.	0.3	8
40	Assimilation of <sc>SMOS</sc> LÊuml; band wind speeds: impact on Met Office global <sc>NWP</sc> and tropical cyclone predictions. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2018, 144, 614-629.	1.0	7
41	Ten Years of Satellite Infrared Radiance Monitoring With the Met Office NWP Model. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2021, 59, 4561-4569.	2.7	7
42	Observation of absorbing aerosols above clouds over the south-east Atlantic Ocean from the geostationary satellite SEVIRI Á PartÁ2: Comparison with MODIS and aircraft measurements from the CLARIFY-2017 field campaign. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 3235-3254.	1.9	7
43	A Process Study of the Dependence of Ice Crystal Absorption on Particle Geometry: Application to Aircraft Radiometric Measurements of Cirrus Cloud in the Terrestrial Window Region. <i>Journals of the Atmospheric Sciences</i> , 2003, 60, 417-427.	0.6	7
44	Clouds over the summertime Sahara: an evaluation of Met Office retrievals from Meteosat Second Generation using airborne remote sensing. <i>Atmospheric Chemistry and Physics</i> , 2017, 17, 5789-5807.	1.9	6
45	Combined radar and lidar cloud remote sensing: Comparison with IR radiometer and in-situ measurements. <i>Physics and Chemistry of the Earth</i> , 2000, 25, 1049-1055.	0.3	5
46	A case study of sulphur dioxide identification in three different volcanic eruptions, using Infrared satellite observations (<sc>IASI</sc>). <i>Meteorological Applications</i> , 2016, 23, 477-490.	0.9	5
47	Evaluating nonlinear maximum likelihood optimal estimation uncertainty in cloud and aerosol remote sensing. <i>Atmospheric Science Letters</i> , 2020, 21, e980.	0.8	2
48	Volcanic plume imagery from MeteosatÁ9. <i>Weather</i> , 2011, 66, 299-299.	0.6	0