

# Francois-Marie A Breon

## List of Publications by Year in descending order

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Version: 2024-02-01

86  
papers

7,526  
citations

71102

41  
h-index

56724

83  
g-index

117  
all docs

117  
docs citations

117  
times ranked

8818  
citing authors

#	ARTICLE	IF	CITATIONS
1	Estimating PAR absorbed by vegetation from bidirectional reflectance measurements. Remote Sensing of Environment, 1995, 51, 375-384.	11.0	973
2	Surface Urban Heat Island Across 419 Global Big Cities. Environmental Science & Technology, 2012, 46, 696-703.	10.0	864
3	Near-real-time monitoring of global CO2 emissions reveals the effects of the COVID-19 pandemic. Nature Communications, 2020, 11, 5172.	12.8	420
4	Aerosol Effect on Cloud Droplet Size Monitored from Satellite. Science, 2002, 295, 834-838.	12.6	380
5	Contribution of the Orbiting Carbon Observatory to the estimation of CO2sources and sinks: Theoretical study in a variational data assimilation framework. Journal of Geophysical Research, 2007, 112, .	3.3	301
6	Current systematic carbon-cycle observations and the need for implementing a policy-relevant carbon observing system. Biogeosciences, 2014, 11, 3547-3602.	3.3	189
7	Assessing climate change impacts on European wind energy from ENSEMBLES high-resolution climate projections. Climatic Change, 2015, 128, 99-112.	3.6	171
8	Application of the CALIOP layer product to evaluate the vertical distribution of aerosols estimated by global models: AeroCom phase I results. Journal of Geophysical Research, 2012, 117, .	3.3	170
9	An attempt at estimating Paris area CO <sub>2</sub> emissions from atmospheric concentration measurements. Atmospheric Chemistry and Physics, 2015, 15, 1707-1724.	4.9	169
10	Injection height of biomass burning aerosols as seen from a spaceborne lidar. Geophysical Research Letters, 2007, 34, .	4.0	166
11	Variability of biome reflectance directional signatures as seen by POLDER. Remote Sensing of Environment, 2005, 98, 80-95.	11.0	149
12	Polarized reflectances of natural surfaces: Spaceborne measurements and analytical modeling. Remote Sensing of Environment, 2009, 113, 2642-2650.	11.0	141
13	An evaluation of satellite aerosol products against sunphotometer measurements. Remote Sensing of Environment, 2011, 115, 3102-3111.	11.0	130
14	Cloud droplet effective radius from spaceborne polarization measurements. Geophysical Research Letters, 1998, 25, 1879-1882.	4.0	127
15	Carbon Monitor, a near-real-time daily dataset of global CO2 emission from fossil fuel and cement production. Scientific Data, 2020, 7, 392.	5.3	115
16	Evaluation of aerosol indirect radiative forcing in MIRAGE. Journal of Geophysical Research, 2001, 106, 5317-5334.	3.3	97
17	Simultaneous retrieval of aerosol and surface properties from a combination of AERONET and satellite data. Remote Sensing of Environment, 2007, 107, 90-108.	11.0	97
18	Correction of MODIS surface reflectance time series for BRDF effects. Remote Sensing of Environment, 2012, 125, 1-9.	11.0	96

#	ARTICLE	IF	CITATIONS
19	Analysis of aerosol-cloud interaction from multi-sensor satellite observations. Geophysical Research Letters, 2010, 37, .	4.0	92
20	Regional climate model simulations indicate limited climatic impacts by operational and planned European wind farms. Nature Communications, 2014, 5, 3196.	12.8	90
21	The first 1-year-long estimate of the Paris region fossil fuel CO <sub>2</sub> emissions based on atmospheric inversion. Atmospheric Chemistry and Physics, 2016, 16, 14703-14726.	4.9	87
22	Analysis of hot spot directional signatures measured from space. Journal of Geophysical Research, 2002, 107, AAC 1-1.	3.3	86
23	Spaceborne estimate of atmospheric CO <sub>2</sub> column by use of the differential absorption method: error analysis. Applied Optics, 2003, 42, 3595.	2.1	86
24	Using satellite data to improve the leaf phenology of a global terrestrial biosphere model. Biogeosciences, 2015, 12, 7185-7208.	3.3	85
25	A method for improving hotspot directional signatures in BRDF models used for MODIS. Remote Sensing of Environment, 2016, 186, 135-151.	11.0	85
26	Horizontally Oriented Plates in Clouds. Journals of the Atmospheric Sciences, 2004, 61, 2888-2898.	1.7	82
27	Cloud Detection from the Spaceborne POLDER Instrument and Validation against Surface Synoptic Observations. Journal of Applied Meteorology and Climatology, 1999, 38, 777-785.	1.7	80
28	On the accuracy of the CO <sub>2</sub> surface fluxes to be estimated from the GOSAT observations. Geophysical Research Letters, 2009, 36, .	4.0	80
29	Evaluation of the aerosol vertical distribution in global aerosol models through comparison against CALIOP measurements: AeroCom phase II results. Journal of Geophysical Research D: Atmospheres, 2016, 121, 7254-7283.	3.3	80
30	A satellite- and model-based assessment of the 2003 Russian fires: Impact on the Arctic region. Journal of Geophysical Research, 2007, 112, .	3.3	77
31	Aerosol vertical distribution in dust outflow over the Atlantic: Comparisons between GEOS-Chem and Cloud-Aerosol Lidar and Infrared Pathfinder Satellite Observation (CALIPSO). Journal of Geophysical Research, 2008, 113, .	3.3	76
32	Can we reconcile atmospheric estimates of the Northern terrestrial carbon sink with land-based accounting?. Current Opinion in Environmental Sustainability, 2010, 2, 225-230.	6.3	73
33	Regional inversion of CO <sub>2</sub> ecosystem fluxes from atmospheric measurements: reliability of the uncertainty estimates. Atmospheric Chemistry and Physics, 2013, 13, 9039-9056.	4.9	60
34	A BRDF-BPDF database for the analysis of Earth target reflectances. Earth System Science Data, 2017, 9, 31-45.	9.9	58
35	Development of a snow kernel to better model the anisotropic reflectance of pure snow in a kernel-driven BRDF model framework. Remote Sensing of Environment, 2019, 221, 198-209.	11.0	57
36	Sampling strategy and climatic implications of tree-ring stable isotopes on the southeast Tibetan Plateau. Earth and Planetary Science Letters, 2011, 301, 307-316.	4.4	54

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37	Angular signatures of surface reflectances from airborne POLDER data. <i>Remote Sensing of Environment</i> , 1996, 57, 97-107.	11.0	51
38	Retrieval of land surface parameters from airborne POLDER bidirectional reflectance distribution function during HAPEX-Sahel. <i>Journal of Geophysical Research</i> , 1997, 102, 11201-11218.	3.3	49
39	Normalization of the directional effects in NOAA's AVHRR reflectance measurements for an improved monitoring of vegetation cycles. <i>Remote Sensing of Environment</i> , 2006, 102, 402-413.	11.0	49
40	The Earth as an extrasolar planet: the vegetation spectral signature today and during the last Quaternary climatic extrema. <i>International Journal of Astrobiology</i> , 2009, 8, 81-94.	1.6	48
41	The potential of satellite spectro-imagery for monitoring CO <sub>2</sub> emissions from large cities. <i>Atmospheric Measurement Techniques</i> , 2018, 11, 681-708.	3.1	45
42	Variability of tropical upper tropospheric humidity 1979-1998. <i>Journal of Geophysical Research</i> , 2001, 106, 32271-32281.	3.3	41
43	Reflectance of Broken Cloud Fields: Simulation and Parameterization. <i>Journals of the Atmospheric Sciences</i> , 1992, 49, 1221-1232.	1.7	40
44	Diurnal, synoptic and seasonal variability of atmospheric CO <sub>2</sub> in the Paris megacity area. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 3335-3362.	4.9	40
45	Polarized reflectance of bare soils and vegetation: measurements and models. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 1995, 33, 487-499.	6.3	38
46	Spaceborne remote sensing of greenhouse gas concentrations. <i>Comptes Rendus - Geoscience</i> , 2010, 342, 412-424.	1.2	38
47	Declining uncertainty in transient climate response as CO <sub>2</sub> forcing dominates future climate change. <i>Nature Geoscience</i> , 2015, 8, 181-185.	12.9	38
48	Land Surface Pressure Estimate from Measurements in the Oxygen A Absorption Band. <i>Journal of Applied Meteorology and Climatology</i> , 1996, 35, 69-77.	1.7	36
49	A static Fourier transform spectrometer for atmospheric sounding: concept and experimental implementation. <i>Optics Express</i> , 2010, 18, 8311.	3.4	36
50	Global distribution of cloud droplet effective radius from POLDER polarization measurements. <i>Geophysical Research Letters</i> , 2000, 27, 4065-4068.	4.0	35
51	CLIMATE: How Do Aerosols Affect Cloudiness and Climate?. <i>Science</i> , 2006, 313, 623-624.	12.6	33
52	The use of the 1.27 $\mu\text{m}$ O <sub>2</sub> absorption band for greenhouse gas monitoring from space and application to MicroCarb. <i>Atmospheric Measurement Techniques</i> , 2020, 13, 3329-3374.	3.1	33
53	Local Anomalies in the Column-Averaged Dry Air Mole Fractions of Carbon Dioxide Across the Globe During the First Months of the Coronavirus Recession. <i>Geophysical Research Letters</i> , 2020, 47, e2020GL090244.	4.0	31
54	Forest summer albedo is sensitive to species and thinning: how should we account for this in Earth system models?. <i>Biogeosciences</i> , 2014, 11, 2411-2427.	3.3	29

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55	The influence of spatial resolution on the angular variation patterns of optical reflectance as retrieved from MODIS and POLDER measurements. <i>Remote Sensing of Environment</i> , 2018, 215, 371-385.	11.0	28
56	Revisiting Pseudo Invariant Calibration Sites (PICS) Over Sand Deserts for Vicarious Calibration of Optical Imagers at 20 km and 100 km Scales. <i>Remote Sensing</i> , 2019, 11, 1166.	4.0	28
57	The specific surface area and chemical composition of diamond dust near Barrow, Alaska. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	27
58	Calibration of the Meteosat water vapor channel using collocated NOAA/HIRS 12 measurements. <i>Journal of Geophysical Research</i> , 2000, 105, 11925-11933.	3.3	23
59	Error Budget of the MEthane Remote LIdar mission and Its Impact on the Uncertainties of the Global Methane Budget. <i>Journal of Geophysical Research D: Atmospheres</i> , 2018, 123, 11,766.	3.3	23
60	CO <sub>2</sub> column averaged mixing ratio from inversion of ground-based solar spectra. <i>Journal of Geophysical Research</i> , 2004, 109, .	3.3	22
61	Assessing the Effectiveness of an Urban CO <sub>2</sub> Monitoring Network over the Paris Region through the COVID-19 Lockdown Natural Experiment. <i>Environmental Science &amp; Technology</i> , 2022, 56, 2153-2162.	10.0	20
62	Downwelling Longwave Irradiance at the Ocean Surface: An Assessment of In Situ Measurements and Parameterizations. <i>Journal of Applied Meteorology and Climatology</i> , 1991, 30, 17-31.	1.7	19
63	A comparison of ground-based near-infrared FTIR retrievals of H <sub>2</sub> O, H <sub>2</sub> O, and HD <sub>2</sub> O vapour from ground-based near-infrared FTIR retrievals of H <sub>2</sub> O, H <sub>2</sub> O, and HD <sub>2</sub> O. <i>Atmospheric Measurement Techniques</i> , 2014, 7, 2567-2580.	3.1	19
64	Impact of cloud horizontal inhomogeneity and directional sampling on the retrieval of cloud droplet size by the POLDER instrument. <i>Atmospheric Measurement Techniques</i> , 2015, 8, 4931-4945.	3.1	19
65	An improved algorithm of cloud droplet size distribution from POLDER polarized measurements. <i>Remote Sensing of Environment</i> , 2019, 228, 61-74.	11.0	19
66	A global map of emission clumps for future monitoring of fossil fuel CO <sub>2</sub> emissions from space. <i>Earth System Science Data</i> , 2019, 11, 687-703.	9.9	19
67	Analysis of temporal and spatial variability of atmospheric CO <sub>2</sub> concentration within Paris from the GreenLITE laser imaging experiment. <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 13809-13825.	4.9	17
68	Global Shortwave Energy Budget at the Earth's Surface from ERBE Observations. <i>Journal of Climate</i> , 1994, 7, 309-324.	3.2	16
69	PMIF v1.0: assessing the potential of satellite observations to constrain CO <sub>2</sub> emissions from large cities and point sources over the globe using synthetic data. <i>Geoscientific Model Development</i> , 2020, 13, 5813-5831.	3.6	16
70	Response to Comment on "Surface Urban Heat Island Across 419 Global Big Cities". <i>Environmental Science &amp; Technology</i> , 2012, 46, 6889-6890.	10.0	15
71	Sensitivity to the sources of uncertainties in the modeling of atmospheric CO <sub>2</sub> concentration within and in the vicinity of Paris. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 10707-10726.	4.9	14
72	Evaluation of the WRF-UCM mesoscale model and ECMWF global operational forecasts over the Paris region in the prospect of tracer atmospheric transport modeling. <i>Elementa</i> , 2018, 6, .	3.2	13

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73	Observation of tropospheric $\hat{D}$ by IASI over western Siberia: comparison with a general circulation model. Atmospheric Measurement Techniques, 2014, 7, 1581-1595.	3.1	12
74	Measuring the Directional Variations of Land Surface Reflectance From MODIS. IEEE Transactions on Geoscience and Remote Sensing, 2015, 53, 4638-4649.	6.3	12
75	XCO <sub>2</sub> estimates from the OCO-2 measurements using a neural network approach. Atmospheric Measurement Techniques, 2021, 14, 117-132.	3.1	11
76	Impact of Lockdowns and Winter Temperatures on Natural Gas Consumption in Europe. Earth's Future, 2022, 10, .	6.3	10
77	The potential of a constellation of low earth orbit satellite imagers to monitor worldwide fossil fuel CO <sub>2</sub> emissions from large cities and point sources. Carbon Balance and Management, 2020, 15, 18.	3.2	9
78	Evidence of Atmospheric Contamination on the Measurement of the Spectral Response of theGMS-5Water Vapor Channel. Journal of Atmospheric and Oceanic Technology, 1999, 16, 1851-1853.	1.3	8
79	Simulating Multi-Directional Narrowband Reflectance of the Earth's Surface Using ADAM (A Surface) Tj ETQq1 1 0.784314 rgBT /Ov 4.0	1.0	8
80	Comment on Rayleigh-scattering calculations for the terrestrial atmosphere. Applied Optics, 1998, 37, 428.	2.1	6
81	A sub km resolution global database of surface reflectance and emissivity based on 10-years of MODIS data. ISPRS Journal of Photogrammetry and Remote Sensing, 2016, 122, 222-235.	11.1	3
82	A local- to national-scale inverse modeling system to assess the potential of spaceborne CO <sub>2</sub> measurements for the monitoring of anthropogenic emissions. Atmospheric Measurement Techniques, 2021, 14, 403-433.	3.1	3
83	Suivi atmosphérique des Émissions de CO <sub>2</sub> de la région parisienne. La Météorologie, 2021, , 030.	0.5	3
84	<title>Assessment of the marine biota DMS-cloud climate hypothesis using remotely sensed data and an ocean general circulation model (OGCM)</title>. , 2000, 4172, 102.		1
85	Remote sensing of high-latitude wetlands using polarized wide-angle imagery. , 1997, , .		0
86	Re: First answer to the reviewer comment. , 0, , .		0