Cyrille Flamant

List of Publications by Year
in descending order

101	4,911	81900	106344
papers	citations	39 h-index	65 g-index

138	138	138	4003
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	An Overview of the International H2O Project (IHOP_2002) and Some Preliminary Highlights. Bulletin of the American Meteorological Society, 2004, 85, 253-278.	3.3	359
2	HyMeX-SOP1: The Field Campaign Dedicated to Heavy Precipitation and Flash Flooding in the Northwestern Mediterranean. Bulletin of the American Meteorological Society, 2014, 95, 1083-1100.	3.3	262
3	Seasonal evolution of the West African heat low: a climatological perspective. Climate Dynamics, 2009, 33, 313-330.	3.8	248
4	RESEARCH CAMPAIGN: The Convective and Orographically Induced Precipitation Study. Bulletin of the American Meteorological Society, 2008, 89, 1477-1486.	3.3	194
5	The past, present and future of African dust. Nature, 2016, 531, 493-495.	27.8	173
6	An analysis of aeolian dust in climate models. Geophysical Research Letters, 2014, 41, 5996-6001.	4.0	156
7	Dust emissions over the Sahel associated with the West African monsoon intertropical discontinuity region: A representative caseâ€study. Quarterly Journal of the Royal Meteorological Society, 2008, 134, 621-634.	2.7	152
8	Airborne observations of the impact of a convective system on the planetary boundary layer thermodynamics and aerosol distribution in the inter-tropical discontinuity region of the West African Monsoon. Quarterly Journal of the Royal Meteorological Society, 2007, 133, 1175-1189.	2.7	143
9	EUREC4A: A Field Campaign to Elucidate the Couplings Between Clouds, Convection and Circulation. Surveys in Geophysics, 2017, 38, 1529-1568.	4.6	132
10	Dynamical mechanisms controlling the vertical redistribution of dust and the thermodynamic structure of the West Saharan atmospheric boundary layer during summer. Atmospheric Science Letters, 2009, 10, 34-42.	1.9	121
11	Observation of convection initiation processes with a suite of stateâ€ofâ€theâ€art research instruments during COPS IOP 8b. Quarterly Journal of the Royal Meteorological Society, 2011, 137, 81-100.	2.7	94
12	Airborne lidar LEANDRE II for water-vapor profiling in the troposphere I System description. Applied Optics, 2001, 40, 3450.	2.1	92
13	EUREC⁴A. Earth System Science Data, 2021, 13, 4067-4119.	9.9	88
14	Mechanisms initiating deep convection over complex terrain during COPS. Meteorologische Zeitschrift, 2008, 17, 931-948.	1.0	86
15	Water Vaporâ€“Forced Greenhouse Warming over the Sahara Desert and the Recent Recovery from the Sahelian Drought. Journal of Climate, 2015, 28, 108-123.	3.2	86
16	The DACCIWA Project: Dynamicsâ€“Aerosolâ€–Chemistryâ€–Cloud Interactions in West Africa. Bulletin of the American Meteorological Society, 2015, 96, 1451-1460.	3.3	84
17	Gap flows: Results from the Mesoscale Alpine Programme. Quarterly Journal of the Royal Meteorological Society, 2007, 133, 881-896.	2.7	76
18	Dust emission and transport associated with a Saharan depression: February 2007 case. Journal of Geophysical Research, 2010, 115, .	3.3	75

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19	Validation of precipitable water from ECMWF model analyses with GPS and radiosonde data during the MAP SOP. Quarterly Journal of the Royal Meteorological Society, 2005, 131, 3013-3036.	2.7	70
20	The water vapour intercomparison effort in the framework of the Convective and Orographicallyâ€induced Precipitation Study: airborneâ€toâ€groundâ€based and airborneâ€toâ€airborne lidar systems. Quarterly Journal of the Royal Meteorological Society, 2011, 137, 325-348.	2.7	66
21	Multiplatform observations of the seasonal evolution of the Saharan atmospheric boundary layer in Tamanrasset, Algeria, in the framework of the African Monsoon Multidisciplinary Analysis field campaign conducted in 2006. Journal of Geophysical Research, 2008, 113, .	3.3	64
22	A meteorological and chemical overview of the DACCIWA field campaign in West Africa in Juneâ€“July 2016. Atmospheric Chemistry and Physics, 2017, 17, 10893-10918.	4.9	62
23	The Dynamicsâ€“Aerosolâ€“Chemistryâ€“Cloud Interactions in West Africa Field Campaign: Overview and Research Highlights. Bulletin of the American Meteorological Society, 2018, 99, 83-104.	3.3	62
24	Radiative heating rates profiles associated with a springtime case of BodÃ©lÃ© and Sudan dust transport over West Africa. Atmospheric Chemistry and Physics, 2010, 10, 8131-8150.	4.9	60
25	Regionalâ€scale convection patterns during strong and weak phases of the Saharan heat low. Atmospheric Science Letters, 2010, 11, 255-264.	1.9	60
26	Links between African easterly waves, midlatitude circulation and intraseasonal pulsations of the West African heat low. Quarterly Journal of the Royal Meteorological Society, 2010, 136, 141-158.	2.7	59
27	The Aerosols, Radiation and Clouds in Southern Africa Field Campaign in Namibia: Overview, Illustrative Observations, and Way Forward. Bulletin of the American Meteorological Society, 2019, 100, 1277-1298.	3.3	59
28	Advances in understanding mineral dust and boundary layer processes over the Sahara from Fennec aircraft observations. Atmospheric Chemistry and Physics, 2015, 15, 8479-8520.	4.9	57
29	Gap flow in an Alpine valley during a shallow south foÂ¨hn event: Observations, numerical simulations and hydraulic analogue. Quarterly Journal of the Royal Meteorological Society, 2002, 128, 1173-1210.	2.7	56
30	The importance of the diurnal cycle of Aerosol Optical Depth in West Africa. Geophysical Research Letters, 2013, 40, 785-790.	4.0	55
31	The impact of a mesoscale convective system cold pool on the northward propagation of the intertropical discontinuity over West Africa. Quarterly Journal of the Royal Meteorological Society, 2009, 135, 139-159.	2.7	54
32	Offshore deep convection initiation and maintenance during the HyMeX IOP 16a heavy precipitation event. Quarterly Journal of the Royal Meteorological Society, 2016, 142, 259-274.	2.7	53
33	Progress in understanding of weather systems in West Africa. Atmospheric Science Letters, 2011, 12, 7-12.	1.9	52
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	Meteorological and dust aerosol conditions over the western Saharan region observed at Fennec Supersiteâ€2 during the intensive observation period in June 2011. Journal of Geophysical Research D: Atmospheres, 2013, 118, 8426-8447.	3.3	52
36	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

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37	Longâ€range transport of Saharan dust and its radiative impact on precipitation forecast: a case study during the Convective and Orographicallyâ€induced Precipitation Study (COPS). Quarterly Journal of the Royal Meteorological Society, 2011, 137, 236-251.	2.7	48
38	Recent climatological trend of the Saharan heat low and its impact on the West African climate. Climate Dynamics, 2016, 47, 3479-3498.	3.8	45
39	Dust impact on the West African heat low in summertime. Quarterly Journal of the Royal Meteorological Society, 2011, 137, 1227-1240.	2.7	44
40	Estimate of Sahelian dust emissions in the intertropical discontinuity region of the West African Monsoon. Journal of Geophysical Research, 2009, 114, .	3.3	41
41	Northward bursts of the West African monsoon leading to rainfall over the Hoggar Massif, Algeria. Quarterly Journal of the Royal Meteorological Society, 2010, 136, 174-189.	2.7	41
42	FÃ¶hn in the Rhine Valley during MAP: A review of its multiscale dynamics in complex valley geometry. Quarterly Journal of the Royal Meteorological Society, 2007, 133, 897-916.	2.7	38
43	Airborne lidar LEANDRE II for water-vapor profiling in the troposphere II First results. Applied Optics, 2001, 40, 3462.	2.1	37
44	Diurnal cycle of the intertropical discontinuity over West Africa analysed by remote sensing and mesoscale modelling. Quarterly Journal of the Royal Meteorological Society, 2010, 136, 92-106.	2.7	37
45	On the decadal scale correlation between African dust and Sahel rainfall: The role of Saharan heat lowâ€“forced winds. Science Advances, 2015, 1, e1500646.	10.3	36
46	Impact of biomass burning on pollutant surface concentrations in megacities of the Gulf of Guinea. Atmospheric Chemistry and Physics, 2018, 18, 2687-2707.	4.9	36
47	Airborne lidar measurements of aerosol spatial distribution and optical properties over the Atlantic Ocean during a European pollution outbreak of ACE-2. Tellus, Series B: Chemical and Physical Meteorology, 2000, 52, 662-677.	1.6	34
48	Threeâ€dimensional distribution of a major desert dust outbreak over East Asia in March 2008 derived from IASI satellite observations. Journal of Geophysical Research D: Atmospheres, 2015, 120, 7099-7127.	3.3	34
49	Sensitivity of the WRF-Chem (V3.6.1) model to different dust emission parametrisation: assessment in the broader Mediterranean region. Geoscientific Model Development, 2017, 10, 2925-2945.	3.6	34
50	Multiâ€platform observations of a springtime case of BodÃ©lÃ© and Sudan dust emission, transport and scavenging over West Africa. Quarterly Journal of the Royal Meteorological Society, 2009, 135, 413-430.	2.7	30
51	Observation of lowâ€level wind reversals in the Gulf of Lion area and their impact on the water vapour variability. Quarterly Journal of the Royal Meteorological Society, 2016, 142, 153-172.	2.7	30
52	Transport of dust particles from the BodÃ©lÃ© region to the monsoon layer â€“ AMMA case study of the 9â€“14 June 2006 period. Atmospheric Chemistry and Physics, 2011, 11, 479-494.	4.9	29
53	The Saharan heat low and moisture transport pathways in the central Saharaâ€”Multiaircraft observations and Africaâ€LAM evaluation. Journal of Geophysical Research D: Atmospheres, 2015, 120, 4417-4442.	3.3	29
54	Remote biomass burning dominates southern West African air pollution during the monsoon. Atmospheric Chemistry and Physics, 2019, 19, 15217-15234.	4.9	29

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55	Convective initiation and maintenance processes of two backâ€building mesoscale convective systems leading to heavy precipitation events in Southern Italy during <scp>HyMeX IOP</scp> 13. Quarterly Journal of the Royal Meteorological Society, 2016, 142, 2623-2635.	2.7	27
56	Overview of aerosol optical properties over southern West Africa from DACCIWA aircraft measurements. Atmospheric Chemistry and Physics, 2020, 20, 4735-4756.	4.9	27
57	Assessing the role of anthropogenic and biogenic sources on PM₁ over southern West Africa using aircraft measurements. Atmospheric Chemistry and Physics, 2018, 18, 757-772.	4.9	26
58	Characterization of dust emission from alluvial sources using aircraft observations and highâ€resolution modeling. Journal of Geophysical Research D: Atmospheres, 2013, 118, 7237-7259.	3.3	24
59	Diurnal cycle of coastal anthropogenic pollutant transport over southern West Africa during the DACCIWA campaign. Atmospheric Chemistry and Physics, 2019, 19, 473-497.	4.9	24
60	Fennec dust forecast intercomparison over the Sahara in June 2011. Atmospheric Chemistry and Physics, 2016, 16, 6977-6995.	4.9	21
61	Tropical moisture enriched storm tracks over the Mediterranean and their link with intense rainfall in the Cevennesâ€Vivarais area during HyMeX. Quarterly Journal of the Royal Meteorological Society, 2016, 142, 320-334.	2.7	21
62	Aerosol distribution in the northern Gulf of Guinea: local anthropogenic sources, long-range transport, and the role of coastal shallow circulations. Atmospheric Chemistry and Physics, 2018, 18, 12363-12389.	4.9	21
63	Lagrangian dust model simulations for a case of moist convective dust emission and transport in the western Sahara region during Fennec/LADUNEX. Journal of Geophysical Research D: Atmospheres, 2015, 120, 6117-6144.	3.3	20
64	Unexpected Biomass Burning Aerosol Absorption Enhancement Explained by Black Carbon Mixing State. Geophysical Research Letters, 2020, 47, e2020GL089055.	4.0	20
65	Initiation and development of a mesoscale convective system in the Ebro River Valley and related heavy precipitation over northeastern Spain during HyMeX IOP 15a. Quarterly Journal of the Royal Meteorological Society, 2017, 143, 942-956.	2.7	19
66	Role of moisture patterns in the backbuilding formation of HyMeX IOP13 heavy precipitation systems. Quarterly Journal of the Royal Meteorological Society, 2018, 144, 291-303.	2.7	19
67	Aerosol influences on low-level clouds in the West African monsoon. Atmospheric Chemistry and Physics, 2019, 19, 8503-8522.	4.9	19
68	Assimilation of waterâ€vapour airborne lidar observations: impact study on the COPS precipitation forecasts. Quarterly Journal of the Royal Meteorological Society, 2012, 138, 1652-1667.	2.7	18
69	Integrated water vapour content retrievals from ship-borne GNSS receivers during EUREC⁴A. Earth System Science Data, 2021, 13, 1499-1517.	9.9	18
70	Importance of the Saharan heat low in controlling the North Atlantic free tropospheric humidity budget deduced from IASI <i>Î´</i>D observations. Atmospheric Chemistry and Physics, 2017, 17, 9645-9663.	4.9	17
71	A multiâ€instrument and multiâ€model assessment of atmospheric moisture variability over the western Mediterranean during HyMeX. Quarterly Journal of the Royal Meteorological Society, 2016, 142, 7-22.	2.7	16
72	Threeâ€dimensional pathways of dust over the Sahara during summer 2011 as revealed by new Infrared Atmospheric Sounding Interferometer observations. Quarterly Journal of the Royal Meteorological Society, 2020, 146, 2731-2755.	2.7	16

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73	Integrated water vapour observations in the Caribbean arc from a network of ground-based GNSS receivers during EUREC⁴A. Earth System Science Data, 2021, 13, 2407-2436.	9.9	15
74	High Energy Parametric Laser Source and Frequency-Comb-Based Wavelength Reference for CO2 and Water Vapor DIAL in the 2 Âµm Region: Design and Pre-Development Experimentations. Atmosphere, 2021, 12, 402.	2.3	14
75	Trade-wind clouds and aerosols characterized by airborne horizontal lidar measurements during the EUREC⁴A field campaign. Earth System Science Data, 2020, 12, 2919-2936.	9.9	13
76	Multiâ€scale observations of atmospheric moisture variability in relation to heavy precipitating systems in the northwestern Mediterranean during HyMeX IOP12. Quarterly Journal of the Royal Meteorological Society, 2018, 144, 2761-2780.	2.7	12
77	The AROME-WMED reanalyses of the first special observation period of the Hydrological cycle in the Mediterranean experiment (HyMeX). Geoscientific Model Development, 2019, 12, 2657-2678.	3.6	12
78	Evidence of the complexity of aerosol transport in the lower troposphere on the Namibian coast during AEROCLO-sA. Atmospheric Chemistry and Physics, 2019, 19, 14979-15005.	4.9	12
79	Interactions of atmospheric gases and aerosols with the monsoon dynamics over the Sudano-Guinean region during AMMA. Atmospheric Chemistry and Physics, 2018, 18, 445-465.	4.9	10
80	The role of aerosolâ€“radiationâ€“cloud interactions in linking anthropogenic pollution over southern west Africa and dust emission over the Sahara. Atmospheric Chemistry and Physics, 2019, 19, 14657-14676.	4.9	10
81	The role the Saharan Heat Low plays in dust emission and transport during summertime in North Africa. Aeolian Research, 2017, 28, 1-12.	2.7	9
82	Water vapor mixing ratio and temperature inter-comparison results in the framework of the Hydrological Cycle in the Mediterranean Experimentâ€"Special Observation Period 1. Bulletin of Atmospheric Science and Technology, 2020, 1, 113-153.	0.9	9
83	EUREC⁴A observations from the SAFIRE ATR42 aircraft. Earth System Science Data, 2022, 14, 2021-2064.	9.9	9
84	Monitoring the West African heat low at seasonal and intraâ€seasonal timescales using <scp>AMSU</scp>â€A sounder. Atmospheric Science Letters, 2013, 14, 263-271.	1.9	8
85	The radiative impact of desert dust on orographic rain in the CÃ©vennesâ€“Vivarais area: a case study from HyMeX. Atmospheric Chemistry and Physics, 2015, 15, 12231-12249.	4.9	7
86	Experimental investigation of the stable water isotope distribution in an Alpine lake environment (L-WAIVE). Atmospheric Chemistry and Physics, 2021, 21, 10911-10937.	4.9	7
87	West African monsoon precipitation impacted by the South Eastern Atlantic biomass burning aerosol outflow. Npj Climate and Atmospheric Science, 2021, 4, .	6.8	6
88	A network of water vapor Raman lidars for improving heavy precipitation forecasting in southern France: introducing the WaLiNeAs initiative. Bulletin of Atmospheric Science and Technology, 2021, 2, 1.	0.9	5
89	Differential absorption lidar for water vapor isotopologues in the 1.98â€‰Âµm spectral region: sensitivity analysis with respect to regional atmospheric variability. Atmospheric Measurement Techniques, 2021, 14, 6675-6693.	3.1	5
90	Smoke in the river: an Aerosols, Radiation and Clouds in southern Africa (AEROCLO-sA) case study. Atmospheric Chemistry and Physics, 2022, 22, 5701-5724.	4.9	5

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91	Mesoscale spatio-temporal variability of airborne lidar-derived aerosol properties in the Barbados region during EUREC⁴A. Atmospheric Chemistry and Physics, 2022, 22, 1271-1292.	4.9	4
92	Acceleration of the southern African easterly jet driven by the radiative effect of biomass burning aerosols and its impact on transport during AEROCLO-sA. Atmospheric Chemistry and Physics, 2022, 22, 8639-8658.	4.9	4
93	Simple solutions for the summer shallow atmospheric circulation over North Africa. Quarterly Journal of the Royal Meteorological Society, 2018, 144, 765-779.	2.7	3
94	Seasonal forecasts of the Saharan heat low characteristics: a multi-model assessment. Weather and Climate Dynamics, 2021, 2, 893-912.	3.5	3
95	Sensitivity of low-level clouds and precipitation to anthropogenic aerosol emission in southern West Africa: a DACCIWA case study. Atmospheric Chemistry and Physics, 2022, 22, 3251-3273.	4.9	3
96	Aerosol above-cloud direct radiative effect and properties in the Namibian region during the AErosol, RadiatiOn, and CLOuds in southern Africa (AEROCLO-sA) field campaign â€“ Multi-Viewing, Multi-Channel, Multi-Polarization (3MI) airborne simulator and sun photometer measurements. Atmospheric Chemistry and Physics, 2021, 21, 8233-8253.	4.9	2
97	A weather regime characterisation of winter biomass aerosol transport from southern Africa. Atmospheric Chemistry and Physics, 2021, 21, 16575-16591.	4.9	2
98	Cloud Cover over the Sahara during the Summer and Associated Circulation Features. Atmosphere, 2021, 12, 428.	2.3	1
99	Water vapor mixing ratio and temperature inter-comparison results in the framework of the Hydrological Cycle in the Mediterranean Experimentâ€”Special Observation Period 1. , 2020, 1, 113.		1
100	WaVIL : a Differential Absorption LIDAR for Water Vapor and Isotope HDO Observation in the Lower Troposphere - Instrument Design. , 2020, , .		1
101	Preliminary range-resolved detection of stable water isotopologues by differential absorption lidar using a 2 Âµm parametric source. , 2022, , .		1