Paolo Di Girolamo

List of Publications by Year
in descending order

123 papers	3,445 citations	147801 31 h-index	155660 55 g-index
142 all docs	142 docs citations	142 times ranked	3033 citing authors

#	Article	IF	Citations
1	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
2	RESEARCH CAMPAIGN: The Convective and Orographically Induced Precipitation Study. Bulletin of the American Meteorological Society, 2008, 89, 1477-1486.	3.3	194
3	The Convective and Orographicallyâ€induced Precipitation Study (COPS): the scientific strategy, the field phase, and research highlights. Quarterly Journal of the Royal Meteorological Society, 2011, 137, 3-30.	2.7	181
4	Largeâ€eddy simulations over Germany using ICON: a comprehensive evaluation. Quarterly Journal of the Royal Meteorological Society, 2017, 143, 69-100.	2.7	175
5	A review of the remote sensing of lower tropospheric thermodynamic profiles and its indispensable role for the understanding and the simulation of water and energy cycles. Reviews of Geophysics, 2015, 53, 819-895.	23.0	174
6	Assessment of small-scale integrated water vapour variability during HOPE. Atmospheric Chemistry and Physics, 2015, 15, 2675-2692.	4.9	112
7	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
8	Mechanisms initiating deep convection over complex terrain during COPS. Meteorologische Zeitschrift, 2008, 17, 931-948.	1.0	86
9	Raman Lidar Measurements during the International H2O Project. Part I: Instrumentation and Analysis Techniques. Journal of Atmospheric and Oceanic Technology, 2006, 23, 157-169.	1.3	83
10	Multiparameter Raman Lidar Measurements for the Characterization of a Dry Stratospheric Intrusion Event. Journal of Atmospheric and Oceanic Technology, 2009, 26, 1742-1762.	1.3	82
11	Evidence-Based Considerations Exploring Relations between SARS-CoV-2 Pandemic and Air Pollution: Involvement of PM2.5-Mediated Up-Regulation of the Viral Receptor ACE-2. International Journal of Environmental Research and Public Health, 2020, 17, 5573.	2.6	82
12	The impact of convergence zones on the initiation of deep convection: A case study from COPS. Atmospheric Research, 2009, 93, 680-694.	4.1	77
13	Sensitivity analysis of differential absorption lidar measurements in the mid-infrared region. Applied Optics, 2000, 39, 6847.	2.1	75
14	The HD(CP)² Observational Prototype Experiment (HOPE) â€“ an overview. Atmospheric Chemistry and Physics, 2017, 17, 4887-4914.	4.9	67
15	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
16	Raman lidar observations of a Saharan dust outbreak event: Characterization of the dust optical properties and determination of particle size and microphysical parameters. Atmospheric Environment, 2012, 50, 66-78.	4.1	60
17	Characterization of Upper-Troposphere Water Vapor Measurements during AFWEX Using LASE. Journal of Atmospheric and Oceanic Technology, 2004, 21, 1790-1808.	1.3	59
18	Spaceborne profiling of atmospheric temperature and particle extinction with pure rotational Raman lidar and of relative humidity in combination with differential absorption lidar: performance simulations. Applied Optics, 2006, 45, 2474.	2.1	55

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19	Aerosol observations by lidar in the nocturnal boundary layer. Applied Optics, 1999, 38, 4585.	2.1	53
20	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
21	UV Raman lidar measurements of relative humidity for the characterization of cirrus cloud microphysical properties. Atmospheric Chemistry and Physics, 2009, 9, 8799-8811.	4.9	50
22	Intercomparison of Water Vapor Data Measured with Lidar during IHOP_2002. Part I: Airborne to Ground-Based Lidar Systems and Comparisons with Chilled-Mirror Hygrometer Radiosondes. Journal of Atmospheric and Oceanic Technology, 2007, 24, 3-21.	1.3	48
23	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
24	Processes driving deep convection over complex terrain: a multiâ€scale analysis of observations from COPS IOP 9c. Quarterly Journal of the Royal Meteorological Society, 2011, 137, 137-155.	2.7	48
25	Raman Lidar Measurements during the International H2O Project. Part II: Case Studies. Journal of Atmospheric and Oceanic Technology, 2006, 23, 170-183.	1.3	43
26	Latent heat flux measurements over complex terrain by airborne water vapour and wind lidars. Quarterly Journal of the Royal Meteorological Society, 2011, 137, 190-203.	2.7	42
27	The Dryline on 22 May 2002 during IHOP_2002: Convective-Scale Measurements at the Profiling Site. Monthly Weather Review, 2006, 134, 294-310.	1.4	39
28	Retrieval of foreign-broadened water vapor continuum coefficients from emitted spectral radiance in the H_2O rotational band from 240 to 590 cm^-1. Optics Express, 2008, 16, 15816.	3.4	39
29	EAQUATE: An International Experiment For Hyperspectral Atmospheric Sounding Validation. Bulletin of the American Meteorological Society, 2008, 89, 203-218.	3.3	37
30	Initiation of convection over the Black Forest mountains during COPS IOP15a. Quarterly Journal of the Royal Meteorological Society, 2011, 137, 176-189.	2.7	37
31	Lidar and radar measurements of the melting layer: observations of dark and bright band phenomena. Atmospheric Chemistry and Physics, 2012, 12, 4143-4157.	4.9	36
32	Characterization of the planetary boundary layer height and structure by Raman lidar: comparison of different approaches. Atmospheric Measurement Techniques, 2013, 6, 3515-3525.	3.1	36
33	An Observational and Modeling Study of the Processes Leading to Deep, Moist Convection in Complex Terrain. Monthly Weather Review, 2014, 142, 2687-2708.	1.4	34
34	Two wavelength lidar analysis of stratospheric aerosol size distribution. Journal of Aerosol Science, 1995, 26, 989-1001.	3.8	32
35	Volcanic aerosol layers observed by lidar at South Pole, September 1991â€"June 1992. Geophysical Research Letters, 1993, 20, 807-810.	4.0	31
36	Comparison of active and passive water vapor remote sensing from space: An analysis based on the simulated performance of IASI and space borne differential absorption lidar. Remote Sensing of Environment, 2005, 95, 211-230.	11.0	31

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37	Principal Component Analysis Approach to Evaluate Instrument Performances in Developing a Cost-Effective Reliable Instrument Network for Atmospheric Measurements. Journal of Atmospheric and Oceanic Technology, 2015, 32, 1642-1649.	1.3	31
38	Rain Evaporation Rate Estimates from Dual-Wavelength Lidar Measurements and Intercomparison against a Model Analytical Solution. Journal of Atmospheric and Oceanic Technology, 2017, 34, 829-839.	1.3	31
39	Characterisation of boundary layer turbulent processes by the Raman lidar BASIL in the frame of HD(CP)² Observational Prototype Experiment. Atmospheric Chemistry and Physics, 2017, 17, 745-767.	4.9	31
40	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
41	Lidar observations of the Pinatubo aerosol layer at Thule, Greenland. Geophysical Research Letters, 1994, 21, 1295-1298.	4.0	29
42	Water vapour profiles from Raman lidar automatically calibrated by microwave radiometer data during HOPE. Atmospheric Chemistry and Physics, 2015, 15, 7753-7763.	4.9	29
43	Spatial distribution of doubly scattered polarized laser radiation in the focal plane of a lidar receiver. Applied Optics, 2007, 46, 6821.	2.1	23
44	Simulation of satellite water vapour lidar measurements: Performance assessment under real atmospheric conditions. Remote Sensing of Environment, 2008, 112, 1552-1568.	11.0	22
45	Stratospheric clouds at south pole during 1988 1. Results of lidar observations and their relationship to temperature. Journal of Geophysical Research, 1992, 97, 5939-5946.	3.3	21
46	Retrieval validation during the European Aqua Thermodynamic Experiment. Quarterly Journal of the Royal Meteorological Society, 2007, 133, 203-215.	2.7	21
47	Kinetic-energy distributions of charged fragments from CO2dissociative ionization. Journal of Physics B: Atomic, Molecular and Optical Physics, 1994, 27, 2051-2061.	1.5	20
48	MAJOR ADVANCES FORESEEN IN HUMIDITY PROFILING FROM THE WATER VAPOUR LIDAR EXPERIMENT IN SPACE (WALES). Bulletin of the American Meteorological Society, 2004, 85, 237-252.	3.3	20
49	Measurements of low amounts of precipitable water vapor by millimeter wave spectroscopy: An intercomparison with radiosonde, Raman lidar, and Fourier transform infrared data. Journal of Geophysical Research, 2008, 113, .	3.3	20
50	Ground-based lidar and microwave radiometry synergy for high vertical resolution absolute humidity profiling. Atmospheric Measurement Techniques, 2016, 9, 4013-4028.	3.1	20
51	Forecasting summer convection over the Black Forest: a case study from the Convective and Orographicallyâ€induced Precipitation Study (COPS) experiment. Quarterly Journal of the Royal Meteorological Society, 2011, 137, 101-117.	2.7	19
52	Analysis of cirrus cloud spectral signatures in the far infrared. Journal of Quantitative Spectroscopy and Radiative Transfer, 2014, 141, 49-64.	2.3	19
53	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
54	Space-borne profiling of atmospheric thermodynamic variables with Raman lidar: performance simulations. Optics Express, 2018, 26, 8125.	3.4	19

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55	Observations of correlated behavior of stratospheric ozone and aerosol at Thule during winter 1991â€1992. Geophysical Research Letters, 1992, 19, 1823-1826.	4.0	18
56	Backscatter measurements of stratospheric aerosols at Thule during January-February 1992. Geophysical Research Letters, 1994, 21, 1303-1306.	4.0	15
57	Lidar observations of polar stratospheric clouds at the South Pole: 1. Stratospheric unperturbed conditions, 1990. Journal of Geophysical Research, 1997, 102, 12937-12943.	3.3	13
58	Assessment of Trends and Uncertainties in the Atmospheric Boundary Layer Height Estimated Using Radiosounding Observations over Europe. Atmosphere, 2021, 12, 301.	2.3	13
59	Stratospheric clouds at South Pole during 1988 2. Their evolution in relation to atmospheric structure and composition. Journal of Geophysical Research, 1992, 97, 5947-5952.	3.3	12
60	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
61	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
62	Overview towards improved understanding of the mechanisms leading to heavy precipitation in the western Mediterranean: lessons learned from HyMeX. Atmospheric Chemistry and Physics, 2021, 21, 17051-17078.	4.9	12
63	Comparison of IASI water vapour products over complex terrain with COPS campaign data. Meteorologische Zeitschrift, 2013, 22, 471-487.	1.0	11
64	Lidar observations of polar stratospheric clouds at the South Pole: 2. Stratospheric perturbed conditions, 1992 and 1993. Journal of Geophysical Research, 1997, 102, 12945-12955.	3.3	10
65	Model simulations of melting hydrometeors: A new lidar bright band from melting frozen drops. Geophysical Research Letters, 2003, 30, .	4.0	9
66	Temperature and water vapour measurements in the framework of the Network for the Detection of Atmospheric Composition Change (NDACC). Atmospheric Measurement Techniques, 2020, 13, 405-427.	3.1	9
67	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
68	The role of orography in the regeneration of convection: A case study from the convective and orographically-induced precipitation study. Meteorologische Zeitschrift, 2015, 24, 83-97.	1.0	9
69	Numerical simulation of light backscattering by spheres with off-center inclusion Application to the lidar case. Applied Optics, 2004, 43, 5512.	2.1	8
70	Clear-air lidar dark band. Atmospheric Chemistry and Physics, 2018, 18, 4885-4896.	4.9	8
71	Assessment of the potential role of atmospheric particulate pollution and airborne transmission in intensifying the first wave pandemic impact of SARS-CoV-2/COVID-19 in Northern Italy. Bulletin of Atmospheric Science and Technology, 2020, 1, 515-550.	0.9	8
72	On the temperature dependence of polar stratospheric clouds. Geophysical Research Letters, 1991, 18, 424-427.	4.0	7

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73	Vertical velocity observed by Doppler lidar during cops - A case study with a convective rain event. Meteorologische Zeitschrift, 2013, 22, 463-470.	1.0	7
74	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
75	Aerosol Direct Radiative Effects under Cloud-Free Conditions over Highly-Polluted Areas in Europe and Mediterranean: A Ten-Years Analysis (2007â€"2016). Remote Sensing, 2021, 13, 2933.	4.0	7
76	The Evolution of the Pinatubo Stratospheric Aerosol Layer Observed by Lidar at South Pole, Rome, Thule: a Summary of Results. , 1996, , 17-32.		7
77	Comparison of Raman Lidar Observations of Water Vapor with COSMO-DE Forecasts during COPS 2007. Weather and Forecasting, 2011, 26, 1056-1066.	1.4	6
78	Overview: Tropospheric profiling: state of the art and future challenges â€" introduction to the AMT special issue. Atmospheric Measurement Techniques, 2014, 7, 2981-2986.	3.1	6
79	Characterization of atmospheric aerosol optical properties based on the combined use of a ground-based Raman lidar and an airborne optical particle counter in the framework of the Hydrological Cycle in the Mediterranean Experiment â€" Special Observation Period 1. Atmospheric Measurement Techniques, 2019, 12, 2183-2199.	3.1	6
80	Impact of the different vehicle fleets on PM10 pollution: Comparison between the ten most populous Italian metropolitan cities for the year 2018. Science of the Total Environment, 2021, 773, 145524.	8.0	6
81	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
82	Measurements of aerosol size and microphysical properties A comparison between Raman lidar and airborne sensors. Journal of Geophysical Research D: Atmospheres, 0, , .	3.3	5
83	<title>Lidar validation of temperature and water vapor satellite measurements</title>. , 1994, , .		3
84	Measurement campaign of atmospheric water vapour and aerosols in southern Italy. , 2003, , .		3
85	Convective Precipitation in complex terrain: Results of the COPS campaign. Meteorologische Zeitschrift, 2013, 22, 367-372.	1.0	3
86	Water vapour inter-comparison effort in the framework of the hydrological cycle in the mediterranean experiment â€" special observation period (hymex-sop1). EPJ Web of Conferences, 2018, 176, 08016.	0.3	3
87	High-resolution humidity profiles retrieved from wind profiler radar measurements. Atmospheric Measurement Techniques, 2018, 11, 1669-1688.	3.1	3
88	Lagrangian matches between observations from aircraft, lidar and radar in a warm conveyor belt crossing orography. Atmospheric Chemistry and Physics, 2021, 21, 5477-5498.	4.9	3
89	<title>Multiparametric tunable lidar system based on IR OPO laser sources</title>. , 1997, 3104, 158.		2
90	The Italian phase of the EAQUATE measurement campaign. , 2005, , .		2

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91	Potential of the MTGâ€IRS mission to resolve small scale variability of atmospheric humidity. , 2009, , .		2
92	Lidar observations of low-level wind reversals over the Gulf of Lion and characterization of their impact on the water vapour variability. AIP Conference Proceedings, 2017, , .	0.4	2
93	Characterization of atmospheric thermodynamic variables by Raman lidar in the frame of the International Network for the Detection of Atmospheric Composition Change - NDACC. EPJ Web of Conferences, 2018, 176, 04010.	0.3	2
94	Introducing the Bulletin of Atmospheric Science and Technology. Bulletin of Atmospheric Science and Technology, 2020, 1, 1-11.	0.9	2
95	The effect of COVID-19 on the distribution of PM10 pollution classes of vehicles: Comparison between 2020 and 2018. Science of the Total Environment, 2022, 811, 152036.	8.0	2
96	AIRS retrieval validation during the EAQUATE. , 2006, , .		1
97	Continuous Time Series of Water Vapor Profiles from a Combination of Raman Lidar and Microwave Radiometer. EPJ Web of Conferences, 2016, 119, 05001.	0.3	1
98	Characterization of turbulent processes by the Raman lidar system BASIL during the HD(CP)2 observational prototype experiment â€" HOPE. AIP Conference Proceedings, 2017, , .	0.4	1
99	Temperature inter-comparison effort in the framework of Hydrological Cycle in the Mediterranean Experiment â€" Special Observation Period (HyMeX-SOP1). EPJ Web of Conferences, 2018, 176, 08010.	0.3	1
100	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
101	Statistical Analysis of Simulated Spaceborne Thermodynamics Lidar Measurements in the Planetary Boundary Layer. Frontiers in Remote Sensing, 2022, 3, .	3.5	1
102	Multiparametric lidar system spanning from UV to mid IR. , 1998, , .		0
103	Spaceborne profiling of atmospheric temperature and particle extinction with pure rotational Raman lidar and of relative humidity in combination with differential absorption lidar: performance simulations--erratum. Applied Optics, 2006, 45, 4909.	2.1	0
104	An Intercomparison of Precipitable Water Vapor Measurements Obtained During the ECOWAR Field Campaign. , 2009, , .		0
105	Lidar and Radar Measurements of the melting layer in the frame of the Convective and Orographicallyâ€induced Precipitation Study. , 2009, , .		0
106	Raman Lidar Observations of a MCS in the frame of the Convective and Orographicallyâ€induced Precipitation Study. , 2009, , .		0
107	Characterization of PBL height and structure by Raman lidar: Selected case studies from the convective and orographically-induced precipitation study. , 2013, , .		0
108	Characterization of particle hygroscopicity by Raman lidar: Selected case studies from the convective and orographically-induced precipitation study. , 2013, , .		0

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109	Characterization of convection-related parameters by Raman lidar: Selected case studies from the convective and orographically-induced precipitation study. , 2013, , .		0
110	Characterization of Water Vapor Fluxes by the Raman Lidar System Basil and the Univeristy of Cologne Wind Lidar in the Frame of the HD(CP)2Observational Prototype Experiment â€" Hope. EPJ Web of Conferences, 2016, 119, 25006.	0.3	0
111	Water Vapour Mixing Ratio Measurements in Potenza in the Frame of the International Network for the Detection of Atmospheric Composition Change - NDACC. EPJ Web of Conferences, 2016, 119, 05017.	0.3	0
112	Lidar Observations of Low-level Wind Reversals over the Gulf of Lion and Characterization of Their Impact on the Water Vapour Variability. EPJ Web of Conferences, 2016, 119, 15002.	0.3	0
113	Estimate of rain evaporation rates from dual-wavelength lidar measurements: comparison against a model analytical solution. EPJ Web of Conferences, 2018, 176, 04002.	0.3	0
114	Space-borne profiling of atmospheric thermodynamic variables with raman lidar. EPJ Web of Conferences, 2018, 176, 02002.	0.3	0
115	Clear-air lidar dark band. EPJ Web of Conferences, 2018, 176, 05028.	0.3	0
116	Characterization of Aerosol Size and Microphysical Properties from Multi-Wavelength Raman Lidar Measurements: Inter-Comparison with in Situ Sensors Onboard the ATR 42 in the Framework of HyMEX-SOP1. EPJ Web of Conferences, 2020, 237, 02009.	0.3	0
117	Characterization of Complex Water Vapour Field Structures and their Genesis Based on the Combined use of Raman Lidar Measurements and MESO-NH Model Simulations. EPJ Web of Conferences, 2020, 237, 03007.	0.3	0
118	BAST newsletterâ€"June 2020. Bulletin of Atmospheric Science and Technology, 2020, 1, 257-259.	0.9	0
119	Characterization of Turbulent Processes by the Raman Lidar System Basil in the Frame of the HD(CP)2Observational Prototype Experiment â€" Hope. EPJ Web of Conferences, 2016, 119, 10005.	0.3	0
120	Assessment of cirrus cloud and aerosol radiative effect in South-East Asia by ground-based NASA MPLNET lidar network data and CALIPSO satellite measurements. , 2017, , .		0
121	Introducing the atmospheric thermodynamics lidar in Space: ATLAS. , 2019, , .		0
122	CO2 Profiling by Space-Borne Raman Lidar. EPJ Web of Conferences, 2020, 237, 01004.	0.3	0
123	Water Vapour and Temperature Measurements by Raman Lidar in the Frame of the NDACC. EPJ Web of Conferences, 2020, 237, 05012.	0.3	0