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	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
2	Statistical Analysis of Simulated Spaceborne Thermodynamics Lidar Measurements in the Planetary Boundary Layer. Frontiers in Remote Sensing, 2022, 3, .	3.5	1
3	Assessment of Trends and Uncertainties in the Atmospheric Boundary Layer Height Estimated Using Radiosounding Observations over Europe. Atmosphere, 2021, 12, 301.	2.3	13
4	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
5	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
6	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
7	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
8	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
9	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
10	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
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	BAST newsletterâ€"June 2020. Bulletin of Atmospheric Science and Technology, 2020, 1, 257-259.	0.9	0
13	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
14	Introducing the Bulletin of Atmospheric Science and Technology. Bulletin of Atmospheric Science and Technology, 2020, 1, 1-11.	0.9	2
15	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
16	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
17	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
18	CO2 Profiling by Space-Borne Raman Lidar. EPJ Web of Conferences, 2020, 237, 01004.	0.3	0

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19	Water Vapour and Temperature Measurements by Raman Lidar in the Frame of the NDACC. EPJ Web of Conferences, 2020, 237, 05012.	0.3	0
20	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
21	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
22	Introducing the atmospheric thermodynamics lidar in Space: ATLAS. , 2019, , .		0
23	Clear-air lidar dark band. Atmospheric Chemistry and Physics, 2018, 18, 4885-4896.	4.9	8
24	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
25	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
26	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
27	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
28	Space-borne profiling of atmospheric thermodynamic variables with raman lidar. EPJ Web of Conferences, 2018, 176, 02002.	0.3	0
29	Clear-air lidar dark band. EPJ Web of Conferences, 2018, 176, 05028.	0.3	0
30	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
31	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
32	High-resolution humidity profiles retrieved from wind profiler radar measurements. Atmospheric Measurement Techniques, 2018, 11, 1669-1688.	3.1	3
33	Space-borne profiling of atmospheric thermodynamic variables with Raman lidar: performance simulations. Optics Express, 2018, 26, 8125.	3.4	19
34	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
35	Largeâ€eddy simulations over Germany using ICON: a comprehensive evaluation. Quarterly Journal of the Royal Meteorological Society, 2017, 143, 69-100.	2.7	175
36	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

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37	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
38	The HD(CP)² Observational Prototype Experiment (HOPE) â€“ an overview. Atmospheric Chemistry and Physics, 2017, 17, 4887-4914.	4.9	67
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	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
41	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
42	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
43	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
44	Ground-based lidar and microwave radiometry synergy for high vertical resolution absolute humidity profiling. Atmospheric Measurement Techniques, 2016, 9, 4013-4028.	3.1	20
45	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
46	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
47	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
48	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
49	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
50	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
51	Assessment of small-scale integrated water vapour variability during HOPE. Atmospheric Chemistry and Physics, 2015, 15, 2675-2692.	4.9	112
52	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
53	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
54	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

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55	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
56	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
57	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
58	Analysis of cirrus cloud spectral signatures in the far infrared. Journal of Quantitative Spectroscopy and Radiative Transfer, 2014, 141, 49-64.	2.3	19
59	Characterization of PBL height and structure by Raman lidar: Selected case studies from the convective and orographically-induced precipitation study. , 2013, , .		0
60	Characterization of particle hygroscopicity by Raman lidar: Selected case studies from the convective and orographically-induced precipitation study. , 2013, , .		0
61	Characterization of convection-related parameters by Raman lidar: Selected case studies from the convective and orographically-induced precipitation study. , 2013, , .		0
62	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
63	Comparison of IASI water vapour products over complex terrain with COPS campaign data. Meteorologische Zeitschrift, 2013, 22, 471-487.	1.0	11
64	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
65	Convective Precipitation in complex terrain: Results of the COPS campaign. Meteorologische Zeitschrift, 2013, 22, 367-372.	1.0	3
66	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
67	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
68	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
69	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
70	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
71	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
72	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

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73	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
74	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
75	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
76	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
77	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
78	An Intercomparison of Precipitable Water Vapor Measurements Obtained During the ECOWAR Field Campaign. , 2009, , .		0
79	Lidar and Radar Measurements of the melting layer in the frame of the Convective and Orographicallyâ€induced Precipitation Study. , 2009, , .		0
80	Raman Lidar Observations of a MCS in the frame of the Convective and Orographicallyâ€induced Precipitation Study. , 2009, , .		0
81	Potential of the MTGâ€IRS mission to resolve small scale variability of atmospheric humidity. , 2009, , .		2
82	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
83	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
84	Simulation of satellite water vapour lidar measurements: Performance assessment under real atmospheric conditions. Remote Sensing of Environment, 2008, 112, 1552-1568.	11.0	22
85	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
86	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
87	RESEARCH CAMPAIGN: The Convective and Orographically Induced Precipitation Study. Bulletin of the American Meteorological Society, 2008, 89, 1477-1486.	3.3	194
88	EAQUATE: An International Experiment For Hyperspectral Atmospheric Sounding Validation. Bulletin of the American Meteorological Society, 2008, 89, 203-218.	3.3	37
89	Mechanisms initiating deep convection over complex terrain during COPS. Meteorologische Zeitschrift, 2008, 17, 931-948.	1.0	86
90	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

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91	Spatial distribution of doubly scattered polarized laser radiation in the focal plane of a lidar receiver. Applied Optics, 2007, 46, 6821.	2.1	23
92	Retrieval validation during the European Aqua Thermodynamic Experiment. Quarterly Journal of the Royal Meteorological Society, 2007, 133, 203-215.	2.7	21
93	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
94	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
95	AIRS retrieval validation during the EAQUATE. , 2006, , .		1
96	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
97	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
98	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
99	The Italian phase of the EAQUATE measurement campaign. , 2005, , .		2
100	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
101	Numerical simulation of light backscattering by spheres with off-center inclusion Application to the lidar case. Applied Optics, 2004, 43, 5512.	2.1	8
102	Characterization of Upper-Troposphere Water Vapor Measurements during AFWEX Using LASE. Journal of Atmospheric and Oceanic Technology, 2004, 21, 1790-1808.	1.3	59
103	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
104	Model simulations of melting hydrometeors: A new lidar bright band from melting frozen drops. Geophysical Research Letters, 2003, 30, .	4.0	9
105	Measurement campaign of atmospheric water vapour and aerosols in southern Italy. , 2003, , .		3
106	Sensitivity analysis of differential absorption lidar measurements in the mid-infrared region. Applied Optics, 2000, 39, 6847.	2.1	75
107	Aerosol observations by lidar in the nocturnal boundary layer. Applied Optics, 1999, 38, 4585.	2.1	53
108	Multiparametric lidar system spanning from UV to mid IR. , 1998, , .		0

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109	<title>Multiparametric tunable lidar system based on IR OPO laser sources</title>. , 1997, 3104, 158.		2
110	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
111	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
112	The Evolution of the Pinatubo Stratospheric Aerosol Layer Observed by Lidar at South Pole, Rome, Thule: a Summary of Results. , 1996, , 17-32.		7
113	Two wavelength lidar analysis of stratospheric aerosol size distribution. Journal of Aerosol Science, 1995, 26, 989-1001.	3.8	32
114	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
115	Lidar observations of the Pinatubo aerosol layer at Thule, Greenland. Geophysical Research Letters, 1994, 21, 1295-1298.	4.0	29
116	Backscatter measurements of stratospheric aerosols at Thule during January-February 1992. Geophysical Research Letters, 1994, 21, 1303-1306.	4.0	15
117	<title>Lidar validation of temperature and water vapor satellite measurements</title>. , 1994, , .		3
118	Volcanic aerosol layers observed by lidar at South Pole, September 1991â€"June 1992. Geophysical Research Letters, 1993, 20, 807-810.	4.0	31
119	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
120	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
121	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
122	On the temperature dependence of polar stratospheric clouds. Geophysical Research Letters, 1991, 18, 424-427.	4.0	7
123	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