



# Europass Curriculum Vitae

## Personal information

**First Name(s)/Surname(s)** Leo Pio D'Adderio  
**Address** Via Giuseppe Delfini, 63, 44122 Ferrara, Italy  
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**E-mail** [leopio84@gmail.com](mailto:leopio84@gmail.com)  
**Nationality** Italian  
**Date of birth** February 1<sup>st</sup>, 1984  
**Gender** Male

## Desired employment / Occupational field

**Research and development department manager**

## Work experience

**Dates** January 2018-now  
**Occupation or position held** Post-doc position at ISAC-CNR (prot. N. 0005160 del 29/11/2017)  
**Main activities and responsibilities** I got a post-doc position to develop a blended algorithm combining the SEVIRI measurements and the rainfall estimation from Italian ground based radar network. The aim is to give a rainfall rate estimate at SEVIRI space and time resolution, about 5 km and 15 minutes, respectively. The high Quality Index (QI) radar data are used to train the algorithm, while the estimates will be compared with rain gauge observations. The Italian territory has been divided in box regions according their climatology and orography. Furthermore, the lightning data from ground based sensor (LINET) will be used in order to investigate the possible improvement from the using of these data in estimating the precipitation rate.  
**Responsible** for "development of a blending algorithm (radar-satellite) for the precipitation retrieval" product within the "Intesa Operativa Dipartimento di Protezione Civile (DPC)-ISAC".  
**Collaboration** in the design and development of algorithms H67 and H68 within the H-SAF project.

## Name and address of employer

Institute of Atmospheric Sciences and Climate (ISAC) – National Research Council (CNR)  
Via Fosso del Cavaliere, 100, 00143 Roma

## Type of business or sector

Post-doc

## Dates Occupation or position held Main activities and responsibilities

September 2016-March 2017  
Visitor Scientist at the NASA Goddard Space Flight Center (GSFC)  
I awarded a grant funded by "The Foundation BLANCEFLOR Boncompagni Ludovisi, née Bildt" to spend a period of six months at the NASA-GSFC. Since I am involved in the Ground Validation (GV) team of the GPM mission, I investigated the error in estimating two important parameters (Dmass and Nw) for the GPM retrieval algorithm, by using ground based radars. This analysis will be the first step to validate the DPR (Dual-frequency Precipitation Radar) data. A direct comparison between the parameters as estimated by ground radars and disdrometers has been carried out. Following a request from the GPM Science Team Algorithm, the disdrometer data collected in the GV-GPM field campaigns have been used to derive the DSD parameters retrieval relationships used in the latest version of the DPR algorithm. The sensitivity of these relationships to different precipitation characteristics (convective or stratiform, continental or tropical, ecc.) has to be investigated. I also investigated the Dual Frequency Ratio (DFR), i.e. the ratio between the radar reflectivity measured at two different operating frequencies, by simulating this quantity using disdrometer data. This was individuated as the quantity needed to derive the DSD parameters from the DPR measurements.

**Member** of GPM-GV team.

## Name and address of employer

NASA, Goddard Space Flight Center (GSFC)  
Greenbelt Road, 20771 Greenbelt, MD (USA)

## Type of business or sector

Visitor scientist

<b>Dates</b>	April 2016-July 2016
<b>Occupation or position held</b>	Post-doc position
<b>Main activities and responsibilities</b>	During this period at the University of Leicester, I worked on data collected from an ESA airborne field campaign conducted in Canada by a 94 GHz Doppler radar. Data analysis have been conducted in order to characterize the backscattering properties of sea and land surfaces at slant angles (up to 70 degrees) and to quantify the effect of the interference from the surface return onto the accuracy of the Doppler velocity estimates via a pulse pair polarization diversity signal processing. I analysed the I&Q radar data to calculate the power backscattered by the targets and surfaces (land/water). I also calculated the contribution to the signal attenuation due to the atmospheric gases through a absorption model.
<b>Name and address of employer</b>	Dept. of Physics and Astronomy - University of Leicester University Road, Leicester, LE1 7RH, United Kingdom.
<b>Type of business or sector</b>	Post-doc researcher
<b>Dates</b>	March 2015-December 2017
<b>Occupation or position held</b>	Post-doc position (prot. N. 4872 del 23/02/2015, prot. N. 9377 del 26/01/2016, prot. N. 7471 del 31/01/2017)
<b>Main activities and responsibilities</b>	<p>Precipitation data analysis both from ground based and space born instruments. The work and the projects started during my doctoral studies continued during this three-years post-doctoral contract. In particular, the analysis of the drop size distribution (DSD) properties (DSD spatial variability, DSD parameterization, etc.) has been analyzed using radar data (especially NPOL and DPR), in addition to the disdrometer data. The latter will be simulate the DPR data to study the characteristics of precipitation as retrieved by the DPR.</p> <p>Two different validation studies by using satellite GPM are being carried on. Both studies have the objective to validate the GPM-DPR data, namely the rainfall rate and the Dmass parameters as estimated by the DPR retrieval algorithm, over Italy. The satellite data are directly compared with ground based instruments (radars and rain gauges). These studies fall into my GV involvement.</p> <p>The evolution of the DSD in natural rain has been also investigated. In particular, the conditions most favourable to the reaching of the equilibrium between all microphysical processes taking place during the precipitation formation have been analysed. At the same time, new different parameterizations have been tested to search for different forms that best fit the experimental DSD.</p> <p>All these studies during the post-doctoral period are interlaced with my collaboration, resulting in a number of Visiting Scientist periods, with the NASA laboratories at GSFC. This period saw the collaboration with colleagues of different Italian universities and research centres.</p> <p><b>Member</b> of GPM-GV team.</p> <p><b>Collaboration</b> for the H-SAF validation process.</p>
<b>Name and address of employer</b>	Dept. of Physics and Earth Science - University of Ferrara 1, Saragat Street, 44122 Ferrara
<b>Type of business or sector</b>	Post-doc researcher
<b>Dates</b>	February 2014-May 2014
<b>Occupation or position held</b>	Visitor Scientist at the NASA Goddard Space Flight Center (GSFC)
<b>Main activities and responsibilities</b>	<p>In the frame of my doctoral studies, I spent three months in the NASA laboratory. I worked on drop size distribution (DSD) characteristics in the frame of Global Precipitation Measurement (GPM) Mission. In the frame of Ground Validation (GV) program different measurement campaigns have been carried out. The data collected are useful to improve the DPR retrieval algorithm. In particular, I investigated the raindrop break-up process through disdrometer based raindrop size distribution measurements. The disdrometer measurements were collected during GPM mission ground validation field campaigns in Iowa (IFloods), Oklahoma (MC3E), and Finland (LPVEx) as well as in Alabama, Wallops Island, Mediterranean Basin (HYMEX). The role of drop break-up to the parametric form of the size distribution has been investigated. The parametric form of size distribution has a pronounced effect on the precipitation retrieval from GPM dual-frequency radar. I also analyzed the spatial variability of raindrop size distribution both horizontally using disdrometer network and vertically using vertically pointing radar (MRR). All these efforts are within the objectives of NASA GPM ground validation program. The found results were presented in the periodic discussion in the DSD scientific group and NASA branch meeting as well.</p> <p><b>Member</b> of GPM-GV team.</p>
<b>Name and address of employer</b>	NASA, Goddard Space Flight Center (GSFC) Greenbelt Road, 20771Greenbelt, MD (USA)

<b>Type of business or sector</b>	Visitor Scientist
<b>Dates</b>	January 2012-December 2014
<b>Occupation or position held</b>	PhD in Physics
<b>Main activities and responsibilities</b>	<p>Investigation of both solid and liquid precipitation. To estimate the snowfall rate from radar/satellite measurement, I modelled the ice particles to calculate their backscattering cross section at difference frequencies. To do this, I used an already developed algorithm, the Discrete Dipole Approximation (DDA), adapting it to my needs.</p> <p>Later on, I focused my studies over two aspects that characterize the precipitation: the collisional break-up process and the spatial variability of DSD.</p> <p>The analysis of break-up is oriented to give a better parameterization of this mechanism in natural rain. It arose from the analysis of properties of Doppler spectrum obtained by a low power radar and reflecting in particular DSD shape. Then the analysis has been enlarged to disdrometers based on different principle and not able to give a Doppler spectrum. The study has been developed at my University and was continued at NASA-GFSC (Goddard Flight Space Center) where huge datasets were analyzed with excellent results. The results obtained can be very helpful for radar retrieval because they give a better parameterization of precipitation when break-up is present, and equilibrium DSD is reached.</p> <p>There, has been started the analysis of spatial variability of DSD. Non-uniform beam filling is one of the key uncertainties of the retrieval of DSD and integral rain parameters from radar observables and the highly variable nature of DSD requires dense disdrometer network to study the spatial variability at radars pixel/footprint scale. Since the availability of an unprecedented disdrometric dataset, the spatial variability of rain and DSD parameters has been studied.</p>
<b>Name and address of employer</b>	Department of Physics and Earth Science, University of Ferrara Saragat Street, 44122 Ferrara (Italy)
<b>Type of business or sector</b>	Research
<b>Dates</b>	September 2013-December 2013
<b>Occupation or position held</b>	Paid position as tutor at University of Ferrara – Faculty of Electronic and Informatics Engineering
<b>Main activities and responsibilities</b>	<p>I worked as a support to teaching for the course Physics I, for the degree course in Electrical Engineering and Computer Science.</p> <p>This activity took place in the form of lectures to allow students to better address the written part of the examination of Physics. The lessons, in agreement with the teacher responsible for the course that have been marked as an exercise of the topics that will then be examined. Each lesson included a number of exercises to do with the students.</p>
<b>Name and address of employer</b>	Department of Engineering, University of Ferrara Saragat Street, 44122 Ferrara (Italy)
<b>Type of business or sector</b>	Tutor
<b>Dates</b>	February 2013-June 2013
<b>Occupation or position held</b>	Paid position as tutor at University of Ferrara – Faculty of Chemistry
<b>Main activities and responsibilities</b>	<p>I worked as a support to teaching for the course Physics I, for the degree course in Chemistry.</p> <p>This activity took place in the form of lectures to allow students to better address the written part of the examination of Physics. The lessons, in agreement with the teacher responsible for the course that have been marked as an exercise of the topics that will then be examined. Each lesson included a number of exercises to do with the students.</p>
<b>Name and address of employer</b>	Department of Chemistry, University of Ferrara Mortara Street, 44122 Ferrara (Italy)
<b>Type of business or sector</b>	Tutor
<b>Dates</b>	October 2012
<b>Occupation or position held</b>	Paid position as tutor at University of Ferrara – Faculty of Physics

<b>Main activities and responsibilities</b>	I carried out the activity of tutor for the Physics course at the faculty of Physics. The work was divided into two parts. In the first part were carried out exercises in preparation for the evaluation test that would support students. The second part has been cut more aimed at the recovery of shortcomings pointed out by some student on specific topics.
<b>Name and address of employer</b>	Department of Physics, University of Ferrara 1, Saragat Street, 44122 Ferrara (Italy)
<b>Type of business or sector</b>	Tutor
<b>Dates</b>	20 September 2010 - 19 July 2011
<b>Occupation or position held</b>	Term contract (prot. n. 0003040 del 15/09/2010)
<b>Main activities and responsibilities</b>	Atmospheric characterization of the Castelporziano's environment. Creation and use of a mini-network of microwave disdrometers for the characterization of precipitation both in urban environment and marine environment because the Castelporziano's estate reaches out from the outskirts of city of Rome to waterfront. Possibility of interpolation of disdrometric data both with to polarimetric radar of task group of ISAC institute of Rome and Cloudsat satellite data. Contemporaneous development of disdrometric sensor both hardware and software to improve performances.
<b>Name and address of employer</b>	ISAC-CNR 101, Gobetti Street, 40129 Bologna (Italy)
<b>Type of business or sector</b>	Research
<b>Dates</b>	01 September 2009 - 31 August 2010
<b>Occupation or position held</b>	Temporary job
<b>Main activities and responsibilities</b>	Development of microwave sensor. Because Nubila is a private society, during this year I improved my knowledge in the marketing field. Nubila produces and releases PLUDIX, a disdrometer based on the Doppler effect principle. My duty was been to find new hardware and software solutions and commercialize it. Moreover, I wrote projects, to improve the knowledge of precipitation, to control river and lagoon basins and urban areas. During this is I keep on the research activity to improve the sensor and to find new sensors more efficient and inexpensive.
<b>Name and address of employer</b>	Nubila sas 52, Gobetti Street, 40129 Bologna (Italy)
<b>Type of business or sector</b>	Research
<b>Dates</b>	01 May 2008 - 31 July 2009
<b>Occupation or position held</b>	Term contract (prot. 0000975 del 30/04/2008 prot. 0001567 del 08/07/2008 prot. n. 0002921 del 23/12/2008)
<b>Main activities and responsibilities</b>	Analysis of rain gauge and disdrometric data. The work during this period was developed in two main points: - Data analysis of drop size distribution obtained by PLUDIX in the La Sapienza and Tor Vergata sites and comparison with polarimetric radar data; - Test of a new microwave sensor to improve the performance of PLUDIX also during very light precipitations.  During the first part of work I wrote some algorithms both in C and in Matlab to calculate moments 3,4,5,6 of drop size distribution and analyze the auto and cross correlation spatial and temporal functions. Moreover, using radar data, the vertical structure of precipitation has been reconstructed. The data used come from 2007 but this work probably will continue during the next months. About the second point, a new microwave sensor has been tested and if it provides better performances it will replace the older. Firstly, the new sensor has a lower noise level and a greater signal definition. All that means a better signal to noise ratio and capability to detect very light precipitations. In the future the instrument with new sensor and that one with old sensor will be tested to compare their results.
<b>Name and address of employer</b>	ISAC-CNR 101, Gobetti Street, 40129 Bologna (Italy)
<b>Type of business or sector</b>	Research

**Dates** 01 September 2007 - 20 December 2007

**Occupation or position held** Term contract

**Main activities and responsibilities** Classification of precipitations with active microwave sensor using WMO codes. I wrote some algorithms in programming language C and Matlab to analyze per PLUDIX power spectrum. These algorithms have been used as bottom line to develop an algorithm which provides the WMO codes as output. Then, I verified the agreement between the codes so obtained and that registered by both human observer and other automatic instruments that were present during the Wasserkuppe campaign.

**Name and address of employer** ISAC-CNR  
101, Gobetti Street, 40129 Bologna (Italy)

**Type of business or sector** Research

**Dates** 01 January 2007 - 30 June 2007

**Occupation or position held** Term contract

**Main activities and responsibilities** Study and development of radar-meteorological sensor. In particular a low power microwave disdrometer (PLUDIX) has been tested as PWS (Present Weather Sensor). I analyzed two years of data of a measurement campaign in Wasserkuppe (Germany). I related the shape of disdrometer's power spectrum according to World Meteorological Organization (WMO) codes registered by human observatory. In particular I analyzed 12 codes, of which 3 snow codes, 3 rain codes, 2 snow mixed rain codes, 2 hail codes, 1 ice code and one no precipitation code.

**Name and address of employer** ISAC-CNR  
101, Gobetti Street, 40129 Bologna (Italy)

**Type of business or sector** Research

**Dates** 01 October 2006 - 20 December 2006

**Occupation or position held** Term contract

**Main activities and responsibilities** I wrote some algorithms to acquire and treat meteorological data. In particular, I compared three different instruments based on different principle.

**Name and address of employer** ISAC-CNR  
101, Gobetti Street, 40129 Bologna (Italy)

**Type of business or sector** Research

## Education and training

**Dates** 06 March 2015

**Title of qualification awarded** PhD in Physics

**Principal subjects / occupational skills covered** Microphysics,

**Name and type of organisation providing education and training** University of Ferrara (university)  
9, Savonarola Street, 44121 Ferrara (Italy)

**Level in national or international classification**

**Dates** 01 October 2006 - 13 July 2009

**Title of qualification awarded** Master's Degree in Atmospheric Physics

**Principal subjects / occupational skills covered** Radar Meteorology  
Satellite  
Cloud microphysic

Name and type of organisation providing education and training: University of Ferrara (university)  
 9, Savonarola Street, 44121 Ferrara (Italy)

Level in national or international classification: ISCED 4

Dates: 01 October 2003 - 14 July 2006

Title of qualification awarded: Degree in Meteorology and Environment

Principal subjects / occupational skills covered: Physics  
 Mathematics  
 Dynamic Meteorology  
 PC programming

Name and type of organisation providing education and training: University of Ferrara (University)  
 9, Savonarola Street, 44121 Ferrara (Italy)

Level in national or international classification: ISCED 4

Dates: 20 September 1998 - 29 June 2003

Title of qualification awarded: High School Leaving Qualifications

Name and type of organisation providing education and training: Senior high school "Alfano da Termoli" (Specializing in science education)  
 10, Trieste Avenue, 86039 Termoli (Italy)

**Personal skills and competences**

Mother tongue(s): **Italian**

Other language(s):

Self-assessment  
 European level (\*)

**English**

Understanding				Speaking				Writing	
Listening		Reading		Spoken interaction		Spoken production			
B2	Upper-intermediate	B2	Upper-intermediate	B2	Upper-intermediate	B2	Upper-intermediate	B2	Independent user

(\*) [Common European Framework of Reference \(CEF\) level](#)

Social skills and competences: I am a person which prefers working group and social relations. During my working experience I have had the possibility to cooperate with people that live in different cities and with which the exchange of ideas, scientific material, etc, took place with the most modern communications medium. I like very much sport and I play in a five-a-side team of which I am the "coordinator".

Computer skills and competences: Operative system: Windows and its principal applications (Word, Excel, Power Point). User and Matlab programming. In Matlab I developed different algorithms to analyze different types of data, to simulate complex working instruments like radar and microwave disdrometers. I started as self-taught user of Matlab but I also attended different trainings held by MathWorks. During this years, I increased a lot my knowledge and use of Matlab. Operative system: Linux, programming language C. I wrote an algorithm dedicated to decode BUFR data. Knowledge and programming in Labview to acquire signal from instruments of different types. Excellent aptitude for use of every type of software.

Driving licence(s): B

**Additional information**

**Awards**  
 October 2018  
 CNR Short Term Mobility Grant.  
 Project Title: Regime Dependency of Raindrop Size Distribution for NASA-GPM Mission.

April 2016

Foundation BLANCEFLOR Boncompagni-Ludovisi née Bildt Grant.

Project Title: Analysis of precipitation fine structure for remote sensors calibration.

### Publications

1. D'Adderio L.P., Porcù F., Panegrossi G., Sanò P., Marra A.C. and Dietrich S. 2018. Comparison of the GPM DPR Single- and Double-Frequency Products over the Mediterranean Area. *In preparation*.
2. Tokay A., D'Adderio L.P., Wolff D.B., and Petersen W.A. 2018. Development of Raindrop Size Distribution Parameters for the NASA Global Precipitation Measurement Mission Ground Validation Program, **J. Atmospheric Ocean. Technol.**, *Under Review*. **IF:** 2.122 (2017) 2.411 (5 anni)
3. D'Adderio L.P., Vulpiani G., Porcù F., Tokay A. and Meneghini R. 2018. Comparison of GPM-CO and Ground-Based Radar Retrieval of Mass-Weighted Mean Rain Drop Diameter at Mid-Latitude, **J. Hydrometeorol.**, 19, 1583-1598. **IF:** 3.79 (2017) 4.332 (5 anni), **Cit:** 0
4. Lolli S., D'Adderio L.P., Campbell J.R., Sicard M., Welton E.J., Binci A., Rea A., Tokay A., Comerón A., Barragan R., Baldasano J.M., Gonzalez S., Bech J., Afflitto N., Lewis J.R. and Madonna F. 2018: Vertically Resolved Precipitation Intensity Retrieved through a Synergy between the Ground-Based NASA MPLNET Lidar Network Measurements, Surface Disdrometer Datasets and an Analytical Model Solution, **Remote Sens.**, 10, 1102. **IF:** 3.406 (2017) 3.952 (5 anni), **Cit:** 0
5. Sanò P., Panegrossi G., Casella D., Marra A.C., D'Adderio L.P., Rysman J.F. and Dietrich S. 2018: The Passive Microwave Neural Network Precipitation Retrieval (PNPR) Algorithm for the CONICAL Scanning Global Microwave Imager (GMI) Radiometer, **Remote Sens.**, 10, 1122. **IF:** 3.406 (2017) 3.952 (5 anni), **Cit:** 1
6. Petracca M., D'Adderio L.P., Porcù F., Vulpiani G., Sebastianelli S., and Puca S.A. 2018. Validation of GPM Dual-frequency Precipitation Radar (DPR) rainfall products over Italy, **J. Hydrometeorol.**, 5, 907-925. **IF:** 3.79 (2017) 4.332 (5 anni), **Cit:** 1
7. D'Adderio L.P., Porcù F. and Tokay A., 2018. Equilibrium Drop Size Distribution in natural rain. **Atm. Res.** 200, 70-76. **IF:** 3.817 (2017) 3.762 (5 anni), **Cit:** 3
8. Tokay A., D'Adderio L.P., Porcù F., D.B. Wolff and Petersen W.A. 2017. A Field Study of Footprint-Scale Variability of Raindrop Size Distribution, **J. Hydrometeorol.**, 18, 1365-3179. **IF:** 3.79 (2017) 4.332 (5 anni), **Cit:** 2
9. Battaglia A., Wolde M., D'Adderio L.P., Nguyen C., Illingworth A. and Midhassel R. 2017. Characterization of surface radar cross sections at W-band at slant angles. **IEEE**, 55, 3846-3859. **IF:** 4.662 (2017) 4.69 (5 anni), **Cit:** 2
10. D'Adderio L.P., Cugerone K., Porcù F., De Michele C. and Tokay A., 2016. Capabilities of the Johnson SB distribution in estimating rain variables., **Adv. Water Resour.**, 97, 241-290. **IF:** 3.512 (2017) 4.421 (5 anni), **Cit:** 1
11. Tokay A., D'Adderio L.P., Wolff D.B., and Petersen, W.A., 2016. A Field Study of Pixel-Scale Variability of Raindrop Size Distribution in the Mid-Atlantic Region. **J. Hydrometeorol.**, 17, 1855-1868 **IF:** 3.79 (2017) 4.332 (5 anni), **Cit:** 7
12. D'Adderio L.P., Porcù F., and Tokay A., 2015. Identification and Analysis of Collisional Breakup in Natural Rain. **J. Atmos. Sci.**, 72, 3404–3416. **IF:** 3.159 (2017) 3.5 (5 anni), **Cit:**13
13. Porcù, F., L. P. D'Adderio, F. Prodi and C. Caracciolo, 2013. Rain drop size distribution over the Tibetan Plateau, **Atm. Res.**, 150, 21-30. **IF:** 3.817 (2017) 3.762 (5 anni), **Cit:** 9
14. Porcù, F., L. P. D'Adderio, F. Prodi and C. Caracciolo, 2013, Effects of altitude on maximum raindrop size and fall velocity as limited by collisional breakup, **J. Atmos. Sci.**, 70, 1129-1134 **IF:** 3.159 (2017) 3.5 (5 anni), **Cit:**12

15. Corona, R., T. Wilson, L.P. D'Adderio, F. Porcu, N. Montaldo and J. Albertson, 2013. On the estimation of a surface runoff through a new plot scale rainfall simulator in Sardinia, Italy, **Procedia Environmental Sciences**, 19, 875-884, **Cit:** 5
16. F. Prodi, C. Caracciolo, L. P. D'Adderio, M. Gnuffi and E. Lanzinger, 2011. Comparative investigation of Pludix disdrometer capability as Present Weather Sensor (PWS) during the Wasserkuppe campaign. **Atmospheric Research**, 99, 162-173. **IF:** 3.817 (2017) 3.762 (5 anni), **Cit:** 9
17. Caracciolo C., F. Porcù, L.P. D'Adderio, F. Prodi, 2009. *Analysis of the spatial variability of rain drop size distributions during rain events*. European geosciences Union General Assembly 2009, Vienna, Austria, 19-24 April 2009. **Geophysical Research Abstracts**, Vol. 11.
18. Caracciolo C., F. Porcù, L.P. D'Adderio, F. Prodi, L. Baldini, E. Gorgucci, 2009. *Radar-disdrometer comparison during rain events over the urban area of Rome*. European geosciences Union General Assembly 2009, Vienna, Austria, 19-24 April 2009. **Geophysical Research Abstracts**, Vol. 11.

### Conference's participation

8-12 October 2018, Scottsdale, AZ (USA)  
2018 PMM Science Team Meeting  
Invitation only

1. D'Adderio L.P., Porcù F., Panegrossi G., Sanò P., Marra A.C., Dietrich S. and Tokay A. "Evaluation of the GPM DPR Single- and Double-Frequency Algorithms over the Mediterranean Area". **Presenter.**
2. Marra A.C., Panegrossi G., Sanò P., D'Adderio L.P., Dietrich S., Baldini L., Casella D. and Porcù F. "Heavy Precipitation Systems in the Mediterranean: the Role of GPM".

9-11 October 2018, Montpellier (France)  
16<sup>th</sup> Plinius Conference on Mediterranean Risks

3. Panegrossi G., Marra A.C., Sanò P., D'Adderio L.P., Dietrich S., Baldini L., Montopoli M. and Federico S. "The precipitation structure of the Mediterranean tropical-like cyclone Numa: analysis of GPM-CO observations and NWP simulations".

10-13 September 2018, Bologna (Italy)  
Congresso Nazionale AISAM

4. Panegrossi G., Marra A.C., D'Adderio L.P., Dietrich S., Sanò P., Federico S., Baldini L., and Montopoli M. "The GPM mission and its role in the characterization and monitoring of heavy precipitation events in the Mediterranean area".

1-6 July 2018, Ede (Holland)  
ERAD, European Conference on Radar in Meteorology and Hydrology

5. D'Adderio L.P., Porcù F., Panegrossi G., Sanò P., Marra A.C., Dietrich S. and Tokay A. "Comparison of the GPM DPR Single- and Double-Frequency Algorithms over the Mediterranean Area". **Speaker.**
6. D'Adderio L.P., Vulpiani G., Puca S., Panegrossi G., Sanò P., Marra A.C., and Dietrich S. "Development and Evaluation of the Ground Radar and Infrared Satellite Combined Algorithm for the Italian Peninsula". **Presenter.**

29 May-1 June 2018, Lecce (Italy)  
HyMeX Workshop

7. Panegrossi G., Marra A.C., Sanò P., D'Adderio L.P., Rysman J.F., Dietrich S., Baldini L., Montopoli M. and Federico S. "Role of GPM in the characterization of Medicanes: the case of Numa".



8. Rysman J.F., Marra A.C., Panegrossi G., D'Adderio L.P., Sanò P., Dietrich S., and Casella D. "Heavy snow events over the Mediterranean basin: applications of a new GPM Microwave Imager snowfall retrieval algorithm".
- 8-13 April 2018, Vienna (Austria)  
EGU, European Geosciences Union
9. D'Adderio L.P., Vulpiani G., Porcù F., Tokay A., and Meneghini R. "Comparison of GPM-CO and Ground Based Radar Retrieval of Mass-Weighted Mean Rain Drop Diameter at Mid-Latitudes. **Speaker.**
10. D'Adderio L.P., Porcù F., Panegrossi G., Sanò P., Marra A.C., and Dietrich S. "Evaluation of the GPM DPR Single- and Double-Frequency Algorithms over the Mediterranean Area". **Presenter.**
11. D'Adderio L.P., Vulpiani G., Puca S., Panegrossi G., Sanò P., Marra A.C., and Dietrich S. "Development and Evaluation of the Ground Radar and Infrared Satellite Combined Algorithm for the Italian Peninsula". **Presenter.**
- 16-20 October 2017, San Diego, CA (USA)  
2017 PMM Science Team Meeting  
Invitation only
12. D'Adderio L.P., Vulpiani G., Porcù F., and Tokay A. "Variability and Sensitivity of GPM-retrieved Mass Weighted Diameter over Italy – focus on C/S classification". **Speaker. PSD Working Group.**
13. D'Adderio L.P., Tokay A., Porcù F., Petersen W.A. and Wolff D.B. "A Field Study of Footprint-Scale Variability of Raindrop Size". **Presenter.**
- 2-6 October 2017, Rome (Italy)  
EUMETSAT Meteorological Satellite Conference
14. Petracca M., Puca S., Sebastianelli S., Vulpiani G., D'Adderio L.P., Sanò P., Dietrich S., Marra A.C., Panegrossi G., and Porcù F. "Evaluation of different GMI products over Italy using H-SAF validation methodology".
- 28 August - 1 September 2017, Chicago, IL (USA)  
38th Conference on Radar Meteorology – American Meteorology Society
15. D'Adderio L.P., Vulpiani G., Tokay A. and Porcù F. "Variability and Sensitivity of GPM-retrieved Mass Weighted Diameter over Italy – focus on C/S classification". **Presenter.**
16. Petersen W.A., Tokay A., Morris K., D'Adderio L.P., Wolff D.B. and Gatlin P. "Polarimetric Radar Verification of GPM Satellite-Based Retrievals of Raindrop Size Distribution".
- 25-30 June, 2017, Bucharest (Romania)  
28th International Laser-Radar Conference
17. Lolli S., Di Girolamo P., Welton E.J., Campbell J., Li X., Demoz B., Tokay A., D'Adderio L.P., Binci A. and Rea A. "Synergistic Approach to retrieve raindrop mean volume diameter in the frame of MPLNET Lidar Network".
- 3-4 July 2017, Rome (Italy)  
Convegno RadMet.it 2017
18. D'Adderio L.P., Vulpiani G., Porcù F. and Tokay A. "Diametro medio di massa della DSD da dati GPM per l'utilizzo operative in Italia". **Presenter.**
- 12-16 December 2016, San Francisco, CA (USA)  
AGU Fall meeting
19. D'Adderio L.P., Tokay A., Marks, D., Morris K., Wolff D.B., Gatlin P., Petersen W.A. and Porcù F. "Estimation and Comparison of the derived Dmass and Nw parameters between NASA's S-band Polarimetric Radar (NPOL) and disdrometers". **Presenter.**

24-28 October 2016, Houston, TX (USA)  
2016 PMM Science Team Meeting  
Invitation only

20. Puca S., Petracca M., Vulpiani G., D'Adderio L.P., Buiat M. and Porcù F. "Ground-validation of DPR precipitation rate over Italy".

17-22 April 2016, Vienna (Austria)  
EGU, European Geosciences Union

21. D'Adderio L.P., Tokay A., Meneghini R., Liao L., Petersen W.A. and Porcù F. "Simulation of Dual-Frequency Radar Rainfall Retrievals". **Speaker.**
22. Tokay A., D'Adderio L.P., Marks, D., Wolff D.B., Petersen W.A. and Porcù F. "Comparison of the Radar Observables between NASA's S-band Polarimetric Radar (NPOL) and two-dimensional video disdrometer (2DVD)".
23. D'Adderio L.P., Cugerone K., Porcù F., De Michele C. and Tokay A. "Estimation of rain and DSD variables using the Johnson-SB distribution". **Presenter.**
24. Milani L., Kulie M.S., Casella D., D'Adderio L.P., Dietrich S., Tristan S.L'Ecuyer, Panegrossi G., Porcù F., Sanò P., Wood N.B. " On the use of Cloud Profiling Radar to detect solid precipitation over Antartica at different scales".

14-18 September 2015, Norman, OK (USA)  
37th Conference on Radar Meteorology – American Meteorology Society

25. Tokay A., D'Adderio L.P., Meneghini R., Liao L. and Petersen W.A. "Simulated Dual-Frequency Ratio Measurements in Heavy Rain".

13-17 July 2015, Baltimore, MD (USA)  
2015 PMM Science Team Meeting  
Invitation only

26. D'Adderio L.P., Tokay A., Porcù F., Petersen W.A. and Wolff D.B. "A Field Study of Footprint-Scale Variability of Raindrop Size Distribution". **Presenter.**

12-17 April 2015, Vienna (Austria)  
EGU, European Geosciences Union.

27. D'Adderio L.P., Tokay A., Porcù F., Petersen W.A. and Wolff D.B. "Spatial Variability of Raindrop Size Distribution at small scales". **Speaker.**
28. D'Adderio L.P., Porcù F. and Tokay A. "Development of equilibrium raindrop size distribution in natural rain". **Presenter.**

1-5 September 2014, Garmisch-Partenkirchen (Germany)  
ERAD, European Conference on Radar in Meteorology and Hydrology

29. D'Adderio L.P., Porcù F. and Tokay A. "Raindrop Size Distribution under Drop Break-up: Implications for GPM Algorithm". **Speaker.**
30. Tokay A., D'Adderio L.P., Petersen W.A. and Wolff D.B. "Spatial Variability of Raindrop Size Distribution Variables".

5-7-November 2013, Rome (Italy)  
6th International Workshop for GPM Ground Validation

31. D'Adderio L.P., Porcù F. and Prodi F. "Detection of breakup occurrence in natural rain". **Presenter.**
32. Adirosi E., Baldini L., Cimini D., Colantonio M., Barbieri S., Di Fabio S., Dietrich S., D'Adderio L.P., Ferretti R., Gentile S., Gorgucci E., Maiello I., Marzano F.S., Montopoli M., Panegrossi G., Petracca

M., Picciotti E., Pichelli E., Porcù F., Roberto N., Vulpiani G., Gatlin P., Wingo M., Petersen W.A. "Some results from the HyMeX Special Observation Period (Sep-Nov 2012) in Central Italy".

26-30 April 2013, Beijing (China)

WATGLOBS, International Workshop on Terrestrial Water Cycle Observation and Modeling from Space: Innovation and Reliability of Data Products

7-10 September 2010, Sibiu (Romania)

ERAD, European Conference on Radar in Meteorology and Hydrology.

19-24 April 2009, Vienna (Austria)

EGU, European Geosciences Union.

33. Caracciolo C., Porcù F., D'Adderio L.P. and Prodi F. "Analysis of the spatial variability of rain drop size distributions during rain events".

34. Caracciolo C., Porcù F., D'Adderio L.P., Prodi F., Baldini L. and Gorgucci E. "Radar-disdrometer comparison during rain events over the urban area of Rome".

7-11 July 2008, Cancun (Mexico)

ICCP, International Conference on Clouds and Precipitation.

35. Caracciolo C., Prodi F., D'Adderio L.P. and Lanziniger E. "Precipitation type and rainfall intensity from the PLUDIX disdrometer during the Wasserkuppe campaign".

14-15 June 2007, Ischia (Italy)

National Conference of "Fisica della Terra Fluida e problematiche affini".

#### **Training participation**

31 August 2014, Garmisch-Partenkirchen (Germany)

"Weather radar and dual-polarization"

15-17 June 2012, CASPUR-Rome (Italy)

MATLAB course "Matlab for the scientific computation"

27-30 March 2012, CASPUR-Rome (Italy)

Programming C course "Scientific and technical computation in C language"

21-25 June 2010, ISAC-Lecce (Italy)

ENVI COURSE (Introduction to IDL, Exploring ENVI, Extending ENVI with IDL)