

PERSONAL INFORMATION

Name

Angela MARINONI

Nationality

Italian (F)

OCCUPATION FIELD

SCIENTIFIC RESEARCH

Atmospheric Composition, Aerosol Properties, Background Conditions, Pollution Transport

RESEARCH WORK EXPERIENCE

Period

October 2012 →

Researcher at Institute of Atmospheric and Climate Sciences – Italian Research Council (Bologna, Italy)

Main Activities

Aerosol properties (integration of chemical, physical and optical properties) at Monte Cimone (2165 m asl, Appennins - Italy) and Nepal Climate Observatory at Pyramid (5079 m asl, Himalaya – Nepal) Stations

Main contact for Monte Cimone station in the ACTRIS network

Responsible of WP1 of IAMICA (High technology infrastructure for Integrated Climatic-Environmental monitoring) project

Coordination of ACTRIS-2 Po Valley field campaign, an international effort for improving knowledge on aerosol absorption coefficient.

Period

September 2005 - September 2012

Position

Post Doc (Supervisor: Paolo Bonasoni)

Institute

Institute of Atmospheric and Climate Sciences – Italian Research Council (Bologna, Italy)

Main Activities

Long term measurement of chemical, physical and optical properties of atmospheric aerosol at Monte Cimone (2165 m asl, Appennins - Italy), NCOP (5079 m asl, Himalaya – Nepal).

Period

November 2004 - August 2005

Position

Visiting Scientist CNRS (French Scientific Research Council) Invitation: Gilles Mailhot

Institute

Laboratoire de Photochimie Moléculaire et Macromoléculaire, Clermont Ferrand University, France.

Main Activities

Aerosol-cloud interaction. Coordination of students and technicians in field campaigns and laboratory analyses; data elaboration and interpretation, writing scientific papers and reports.

Period

2003-2004

Position

Post-Doc (Supervisor: Sergio Zappoli)

Institute

Physic and Inorganic Chemistry Department – Bologna University

Main Activities

Solubility-dependent separation of organic matter in different atmospheric phases (aerosol, cloud, snow).

TEACHING AND SCIENCE DIVULGATION EXPERIENCE

Didactic

100 hours of university **teaching** at Bachelor preparation courses of:

Physical Geography (2003), Urban Meteorology (2004) and Climatology (2004) at Milano-Bicocca University; Environmental Monitoring and Environmental Chemistry at Bologna University (2004-2005). Cloud Chemistry (PhD in Chemistry at University of Milano, 2003).

Teaching on the field, in the frame of Geography (Earth Science), Physical Geography (Environmental Science) and Environmental Sciences Field laboratories and in the frame of didactic project “Atmospheric path” (ISAC-CNR, 2006-2017); and “Glaciological path to Forni Glacier” (2004-

2008)

Training of research activity to six bachelor students and two PhD students

Invited Talks

Dissemination activities in schools and environmental associations, seminars and conferences addressed to generic audience (atmospheric composition, glaciology, climate change).

EDUCATION AND TRAINING

Period

2000 – 2003

Title awarded

Environmental Sciences PhD (Supervisor: Paolo Lai)

Thesis Title

“Influence of atmospheric aerosol on chemical and physical processes and its interaction with clouds”

Organisation providing education

University of Milano Bicocca (Italy); the research activity was completely carried out at Laboratoire de Météorologie Physique (Clermont-Ferrand University, France)

2001

Title awarded

MASTER (French Diplôme d'Etude Approfondie) “Climate and Atmospheric Physics and Chemistry”

Thesis Title

“Iron speciation in atmospheric liquid phase at puy de Dôme Atmospheric Station”

Organisation providing education

Blaise Pascal University – Clermont Ferrand

Period

1993 – 1999

Title awarded

Environmental Sciences Bachelor (Supervisor: Giuseppe Orombelli)

Thesis Title

“Chemical composition of fresh snow in Khumbu Valley (Nepal-Himalaya)”

Organisation providing education

Milan University (Italy)

PERSONAL SKILLS

Mother tongue

Italian

Other languages

French (Fluent), English (Good)

Social skills and competences

- Good relational skills, team work.
- I'm used to share international context (I frequently join international field campaigns for aerosol measurement, international meetings and conferences).
- Good communication skills, practise to talk to large audiences (conferences, workshops, teaching) in Italian, English and French.

Organisational skills and competences

- Coordination of students and technicians.
- Organisation of field campaigns.
- Reporting of European and National projects.

Technical skills and competences

- Knowledge of major techniques for trace atmospheric substances and aerosol cloud physical and microphysical properties. Aerosol and cloud sampling. Continuous atmospheric measurements (Puy de Dome, Monte Cimone, NCOP). Knowledge of clean room protocols.
- Statistical elaboration and interpretation of environmental data set.
- Didactic and exposition skills.
- Used to work in extreme conditions (field campaigns of several months in Antarctica, Alps, Himalayas, Andes)

Computer skills

Windows Operational System; (Word, Excel, Power Point, Access, Origin, SigmaPlot, Grapher).

SELECTED PUBLICATIONS

1. Marinoni, A. et al. Continuous measurements of aerosol physical parameters at the Mt. Cimone GAW station (2165 m a.s.l., Italy). *Science of The Total Environment*, 391(2-3), 241-251, 2008.
2. Venzac H et al High Frequency new particle formation in the Himalayas. *Rivista: Proceeding of the National Academy of Science of the United States of America (PNAS)*, Vol. 105 (41), pp. 15666-15671, 2008, editore: National Academy of Science USA, 2008.
3. P.Cristofanelli et al Significant variations of trace gas composition and aerosol properties at Mt. Cimone during air mass transport from North Africa – contributions from wildfire emissions and mineral dust. *Atmos. Chem. Phys.*, 9(14) 4603-4619, 2009.
4. Marinoni, A. et al. Aerosol mass and black carbon concentrations, a two year record at NCO-P (5079 m, Southern Himalayas) (2010) *Atmospheric Chemistry and Physics*, 10 (17), pp. 8551-8562.
5. Marinoni, A. et al. Hydrogen peroxide in natural cloud water: Sources and photoreactivity (2011) *Atmospheric Research*, 101 (1-2), pp. 256-263
6. Sajani, S.Z., et al. Saharan dust and daily mortality in Emilia-Romagna (Italy) (2011) *Occupational and Environmental Medicine*, 68 (6), pp. 446-451.
7. Marinoni, A., et al. High black carbon and ozone concentrations during pollution transport in the Himalayas: Five years of continuous observations at NCO-P global GAW station (2013) *Journal of Environmental Sciences (China)*, 25 (8), pp. 1618-1625.
8. Nair et al. Black carbon aerosols over the Himalayas: Direct and surface albedo forcing (2013) *Tellus, Series B: Chemical and Physical Meteorology*, 65 (1), art. no. 19738, .
9. Sandrini S., et al.. Spatial and seasonal variability of carbonaceous aerosol across Italy (2014) *Atmospheric Environment*, 99, pp. 587-598.
10. Ginot, P., et al.. A 10 year record of black carbon and dust from a Mera Peak ice core (Nepal): Variability and potential impact on melting of Himalayan glaciers (2014) *Cryosphere*, 8 (4), pp. 1479-1496.
11. Putero, D., et al.. Influence of open vegetation fires on black carbon and ozone variability in the southern Himalayas (NCO-P, 5079 m a.s.l.) (2014) *Environmental Pollution*, 184, pp. 597-604.
12. Rinaldi M et al. Organic aerosol evolution and transport observed at Mt. Cimone (2165 m a.s.l.), Italy, during the PEGASOS campaign (2015) *Atmospheric Chemistry and Physics*, 15 (19), pp. 11327-11340.
13. Cristofanelli, P., et al.. Long-term surface ozone variability at Mt. Cimone WMO/GAW global station (2165 m a.s.l., Italy) (2015) *Atmospheric Environment*, 101, pp. 23-33.
14. Kirillova, E.N et al.. Light absorption properties of brown carbon in the high Himalayas (2016) *Journal of Geophysical Research: Atmospheres*, 121 (16), pp. 9621-9639.
15. Duchi, R. et al. Long-term (2002-2012) investigation of Saharan dust transport events at Mt. Cimone GAW global station, Italy (2165 m a.s.l.) (2016) *Elementa*, 2016

I allow the use of my personal data in accordance with the Italian law 196/2003.

