

## Maria Cristina Facchini

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WoS Researcher ID O-1230-2015

### Employment

2018 - present Director, Institute of Atmospheric Sciences and Climate, CNR  
2007 - 2018 Research Director, Institute of Atmospheric Sciences and Climate, CNR  
2001 - 2006 Senior Researcher, Institute of Atmospheric Sciences and Climate, CNR  
1996 - 2006 Researcher, Institute of Physics and Chemistry of the Atmosphere, CNR  
1992 - 1995 Head of Laboratory, Chemistry Division, Regional Environmental Agency  
1987 -1991 Research Fellow, Institute of Atmospheric Physics, CNR  
1986 Post-doc, Department of Chemistry, University of Bologna

### Education

1985 Doctoral Degree *magna cum laude* in Chemistry, University of Bologna

### Research Experience

The overall scientific activity is within the general field of global change, with a special expertise in the physical and chemical processes of aerosols and clouds and their effects on atmospheric composition change, air quality and climate. Over the last fifteen years the focus of my research within the above general subject has been the composition and properties of the organic atmospheric aerosol related to climate change and air quality. Within the above fields I'm a recognized international leader, as clearly evidenced by the scientific production, the invitations as a keynote speaker at several prestigious international conferences, the wide network of scientific collaborations worldwide and, last but not least, the recognition as Highly Cited Researcher, ranked by Thomson Reuters among the top 1% most cited scientists in the field of Geosciences

## Institutional Assignments

- 2018 - present Director, Institute of Atmospheric Sciences and Climate, CNR
- 2015 - 2018 Coordinator of the national program “Global Change: Impacts and Mitigation” of the Department Earth and Environment of the National Research Council
- 2015 - 2018 Coordinator of the ISAC Program “Sources, transformation and deposition of anthropogenic and natural compounds and the interaction air quality-climate”
- 2010 - 2016 Scientific coordinator of the Meteorological Research Station “G. Fea”

## Honours and Awards

- 2017 Nominated by the President of the Republic, Knight Commander of the Order “Merit of the Italian Republic” for scientific achievements
- 2014 Highly Cited Researchers, ranked by Thomson Reuters among the top 1% most cited scientists in the field of Geosciences
- 2014 Recipient of the Haagen-Smit Prize, awarded annually to an outstanding paper published in Atmospheric Environment, as co-author of the paper: Putaud, J.-P. et al., A European aerosol phenomenology—2: chemical characteristics of particulate matter at kerbside, urban, rural and background sites in Europe, Atmos. Environ., 38, 2579-2595, 2004

## Bibliometric data

Number of publications 192; h-index 64; Number of citations (excluding auto-citations) > 15,000 (source: Web of Science)

## Membership of International Committees and Panels

- 2020 - present Steering Committee, Association “Big Data and Artificial Intelligence for human development”, Emilia-Romagna Region
- 2015 - present Steering Committee, Associazione Gruppo 2003 (Italian Association of Highly Cited Scientists)
- 2015 - present Scientific Steering Committee, International Surface Ocean Lower Atmosphere Study (SOLAS) project
- 2014 - present International Commission on Atmospheric Chemistry and Global Pollution (CACGP)

- 2010 - 2013 Lead Author of the 5th Assessment Report - Intergovernmental Panel on Climate Change (IPCC)
- 2009 - 2012 Council of the European Geochemistry Society (EGS)
- 2009 - 2012 Scientific Steering Committee, Italian Aerosol Society (IAS)
- 2008 - 2011 Scientific Steering Committee, International Global Atmospheric Chemistry Programme (IGAC)
- 2006 - present International Committee on Nucleation and Atmospheric Aerosols (ICNAA)

### **Evaluation of Science**

- 2017-present ENI Award Scientific Committee
- 2015 European Research Council, Review Panel PE10–Earth System Science. Consolidator Grant
- 2014 Review Panel, Chemical Sciences Division, Earth System Research Laboratory, National Oceanic and Atmospheric Administration, Boulder, Colorado, USA
- 2014 Geochemical Fellows Committee, Geochemical Society
- 2014 Evaluation Panel, Soil Air and Water Processes, Swedish Research Council
- 2013 Panel of Judges, Nature Awards for Mentoring in Science
- 2013 Evaluation Panel, Atmospheric Sciences, Finnish Academy of Sciences
- 2011 - 2019 Scientific Advisory Board, Max Plank Institute for Chemistry, Mainz, Germany
- 2000 Evaluation Panel Key Action "City of Tomorrow", EC - DG Research

### **Supervision of Students and post-Docs**

- 1987 - 2017 4 Master Students: Department of Environmental Sciences, University of Urbino (3) and Department of Chemistry, University of Bologna (1).
- 5 PhD Students: Department, University of Urbino (3) and Department of Environmental Sciences, University of Bologna (2).
- 11 post-Doc scientists: Institute of Atmospheric Sciences and Climate – CNR, Bologna

### **Editorial Activity**

- 2018 - 2019 Executive Editor Atmospheric Chemistry and Physics

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|----------------|---|
| 2012 - 2018    | Editorial Commission of the American Association for Aerosol Research |
| 2009 – present | Co-Editor, Atmospheric Chemistry and Physics                          |
| 2001 - 2007    | Editorial Board, Atmospheric Environment                              |

### **Membership of Scientific Societies**

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|----------------|---|
| 2017-present   | Italian association of atmospheric and meteorological science (AISAM)     |
| 2015 - present | Italian Society for Climate Sciences                                      |
| 2015 - present | Associazione Gruppo 2003 (Italian Association of Highly Cited Scientists) |
| 2009 - present | European Association for Geochemistry                                     |
| 2008 - present | European Geophysical Union  |
| 2007 - present | American Aerosol Society  |
| 2007 - present | Italian Aerosol Association (Founding Member)                             |
| 2001 - present | American Geophysical Union  |

### **Language skills**

- Italian: mother tongue  
English: advanced user in reading, writing, listening and speaking

### **PI of International and National Research Projects**

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|-------------|---|
| 2019-2022   | FORCES Constrained aerosol forcing for improved Climate projections . EC - Horizon 2020   |
| 2019-2022   | RHAPS : Redox activity and health effects of atmospheric primary and secondary aerosol PRIN2017   |
| 2015 - 2018 | AIR-SEA LAB: Climate-air pollution interaction in coastal environment. Project Laboratorio Congiunto CNR                                    |
| 2013 - 2017 | BACCHUS: Impact of Biogenic versus Anthropogenic Emissions on Clouds and Climate: towards a Holistic Understanding, European Commission FP7 |
| 2011 - 2014 | PEGASOS: Pan-European Gas-Aerosols-Climate Interaction Study, European Commission FP7   |
| 2010 - 2014 | SUPERSITO: Integrated Study of Atmospheric Pollution in the Region Emilia-Romagna, Regional Environmental Agency, Bologna, Italy            |
| 2010 - 2011 | Pilot study on “Assessment of health effects of the chemical composition of ultrafine and fine particles in Italy”, CNR Project, Italy      |

- 2007 - 2010 EUCAARI: European Integrated Project on Aerosol, Cloud, Climate Interaction, European Commission FP6
- 2006 - 2011 AEROCLOUDS: Study of the Direct and Indirect Effects of Aerosols and Clouds on Climate, Italian Ministry of Research
- 2005 - 2009 MAP: Primary and Secondary Marine Aerosol Production from Natural Sources, European Commission FP6
- 2005 - 2007 POLYSOA: Polymers in Secondary Organic Aerosols, European Commission FP6
- 2003 - 2005 TORCH: Tropospheric Organic Chemistry Experiment, and CLOPAP: Cloud Processing of Regional Air Pollution Advecting over Land and Sea, University of Manchester, Institute of Science and Technology, UK
- 2002 - 2005 PHOENICS: Particles of Human Origin Extinguishing Natural Solar Radiation In the Climate System, European Commission FP5
- 2001 – 2004 QUEST: Quantification of Aerosol Nucleation in the European Boundary Layer, European Commission FP5