

Sabrina Gentile is currently Researcher at the Institute of Methodologies for Environmental Analysis (IMAA) at the National Research Council (CNR) and is also affiliated with Center of Excellence for Remote Sensing and Modeling of Severe Weather (CETEMPS) at the University of L'Aquila (Italy).

EDUCATION

-Ph. D. in Physics, University of L'Aquila, Italy, from on March 28, 2011.

Dissertation: Microphysics of convective structures: high resolution models simulations and observations. Advisor: Prof. Rossella Ferretti. *Tutor*: Prof. Guido Visconti.

-Master Degree in Physics, Magna Cum Laude, University of L'Aquila, Italy on 23 April 2007.

Dissertation: Tropical deep convection: Hector, a case study. Thesis Advisor: Prof. Rossella Ferretti.

-College Degree in Physics (110/110), University of L'Aquila, Italy on 18 December 2003.

Dissertation: Determination of few ocean transport parameters from global warming data. Thesis Advisor: Prof. Guido Visconti.

PROFESSIONAL EXPERIENCE:

[01 September 2016 - today] Researcher at the Institute of Methodologies for Environmental Analysis (IMAA), CNR, level III id number 17237 - n. IMAA-001-2016-PZ Art.23 prot. CNR-IMAA n. 0000908 of 05/04/2016. The research focus on the study and development of an operative forecasting weather chain and of the solar potential on the surface on the regions of interest of the SolarCloud Project.

[01.11.2011 – 31.08.2016] Post doc at CETEMPS. The research focus on the validation of the high resolution WRF model on the Abruzzo Region through case studies: fine-tuning of the microphysics.

[05.09.2012 – 06.11.2012] forecaster for CETEMPS during the HyMeX campaign. The aim of the campaign was to broaden the knowledge of dynamics and thermodynamics of severe precipitation events in order to improve hydro-meteorological forecasts.

[9.05.2011 – 02.12.2012] temporal collaboration with Himet S.r.l for the preparation of weather forecasts all over Italy for the web www.xmeteo.it.

[14.01.2011 – 14.07.2011] collaboration with CETEMPS: Development of techniques for the integration of observations from instruments in the mesoscale model MM5 focusing on the microphysics of clouds and convection.

[11.06.2007 – 11.10.2007] temporal collaboration at CETEMPS about: Development of integration method for observations in the mesoscale model MM5 for the cloud microphysics and convection.

[7.02.2005 – 6.05.2005] stage at the Abruzzo Civil Protection - CETEMPS (Center of Excellence for integration of remote sensing techniques and numerical modeling for the forecast of severe weather) - Weather Forecast and statistical evaluation: MM5 (before and after the new operational configuration).

PARTECIPATION TO INTERNATIONAL PROJECTS:

[2022-2024] - VICIRS: "Development of Vicarious Calibration tools for MWI and ICI using RadioSoundings", CONTRACT EUM/CO/22/4600002714/FDA Order n°4500023431

[2021-2023] - RadioSatMet: "Short-Term Forecast of the signal propagation conditions, based on Numerical Weather Prediction Models and Ground Terminal Feedback", in response to: ESA ITT AO9763 - ARTES AT 3B.037

[2021-2022] - REF DAT4ESAMWR "Reference data and procedures for ground atmospheric radiometry for ESA stations and campaigns", ESA contract. No. ESA AO 3-17061/21/NL/GLC/mk

[2020-2021] - RAP CARBON TRUST, Radiometry and Atmospheric Profiling scoping study (RAP), "Assessment of microwave radiometry technology to retrieve atmospheric stability for off-shore wind energy applications", funded by Carbon Trust – Offshore Wind Accelerator.

[2019-2022] - Characterization of W-band propagation channel through ground-based observations (WRad), ESA contract No. 4000125141/18/NL/AF;

[2016-2017] - CAPRADNET "CAPitalization and exploitation of RADar-based infrastructure and decision support system for environmental hazard management NETWORK in the Adriatic and Ionian region", EU contract;

PARTECIPATION TO NATIONAL PROJECTS:

[2021-2023]: ODESSA: "On DEMand Services for Smart Agriculture (ODESSA)", presentato a valere sull'Avviso Pubblico "Sostegno alla creazione e sviluppo dei cluster tecnologici della regione Basilicata e alla realizzazione di progetti di ricerca e sviluppo"

[2017-2019]: "Sviluppo di una Piattaforma per l'erogazione di servizi innovativi basati su dati Osservazione della Terra (SPOT)", MISE progetto F/050236/01-02-03/X32 - Bando Horizon 2020 - PON 2014/2020;

[2015-2018]: SolarCloud: studio, prototipazione e sperimentazione di un servizio cloud per la stima e la previsione della fonte primaria per il management degli impianti di produzione di energia solare (Pratica n. B01/0771/04/X24), Bando nell'ambito del Fondo per la Crescita Sostenibile (FCS) del Ministero dello Sviluppo Economico (MiSE), Direzione Generale per gli incentivi alle imprese, Divisione VII – Interventi per ricerca e sviluppo

HONORS AND AWARDS:

First prize award for the best presentation of the 10th Plinius Conference on Mediterranean Storms (24 September 2008).

Award "Antonio Roiti" from the "Società Italiana di Fisica" for young graduates in Physics (28 Settembre 2009).

RESEARCH ACTIVITY

The research activity focuses on mesoscale numerical weather prediction modelling and data assimilation, particularly dedicated to the optimization of renewable energy harvest (wind and solar). She is Topic Editor for Remote Sensing since 2020. She contributed to several national and international projects funded by the Italian Ministry of Economic Development (SOLARCLOUD, SPOT), the EU (CAPRADNET) and the ESA (WRAD, ESAREF).

Reviewer for: Remote Sensing (ISSN: 2072-4292); Meteorological Applications (ISSN:1469-8080); Bulletin of Atmospheric Science and Technology (ISSN: 2662-1509); Energies (ISSN: 1996-1073); Journal of Applied Meteorology and Climatology (ISSN: 1558-8424); European Journal of Remote Sensing (ISSN: 2279-7254); Atmospheric Research (ISSN: 0169-8095).

Bibliometric indexes (16/10/2023)

a) Scopus (Author ID 18133256900)

– Publications: 31

– Citations: 291 from 247 publications

– h-index: 10