

PERSONAL INFORMATION

Felicità Russo

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✉ felicita.russo@pec.it

Sex Female | Date of birth 03/04/1974 | Nationality Italian

WORK EXPERIENCE

- Dates (from 16 April 2012 to today)

Researcher

ENEA - Bologna

- Use of Spray and Micro Swift Spray models for urban air quality studies and industrial applications.

Business or sector Research

WORK EXPERIENCE

- Dates (from 3 August 2009 to 15 April 2012)

Researcher

ISAC - CNR - Bologna

- Numerical modelling of atmospheric aerosols in the model BOLCHEM, in the frame of the projects CITYZEN (megaCITY - Zoom for the ENvironment) and MACC (Monitoring Atmospheric Composition and Climate).

Business or sector Research

WORK EXPERIENCE

- Dates (from 15 November 2007 to 1 August 2009)

Researcher

IMAA - CNR - Potenza

- Development of Lidar systems and methodologies for the analysis of atmospheric parameters for meteorological studies.

Business or sector Research

WORK EXPERIENCE

- Dates (from 31 August 2001 to 31 August 2007)

Researcher

University of Maryland Baltimore County – UMBC, 1000 Hilltop Circle, Baltimore, USA

- Research work within Dr. D. N. Whiteman's Lidar research group at NASA - Goddard Space Flight Center in Greenbelt, Maryland. Development of a lidar system, participation in measurement campaigns in Oklahoma and Virginia, United States.

Business or sector Research

WORK EXPERIENCE

- Dates (from August 2001 to August 2002)

Teaching Assistant in PHYS101 class

University of Maryland Baltimore County – UMBC, 1000 Hilltop Circle, Baltimore, USA

- Preparation of introductory material for laboratory experiments and explanation of the theoretical base, collection and evaluation of student lab reports, student tutoring, assistance during examinations.

Business or sector Education

EDUCATION AND TRAINING

Date (31 August 2007)

PhD in Atmospheric Physics

University of Maryland Baltimore County – UMBC, Baltimore, MD, Stati Uniti

- Thesis: “An investigation of Raman lidar aerosol measurements and their application to the study of the aerosol indirect effect”

EDUCATION AND TRAINING

Date (31 August 2003)

Master in Atmospheric Physics

University of Maryland Baltimore County – UMBC, Baltimore, MD, Stati Uniti

- Thesis: “Statistical Approach to the Extinction Retrieval with a Raman Lidar”

EDUCATION AND TRAINING

Date (13 December 2001)

Bachelor in Physics

University of Naples “Federico II”, Naples, Italy.

- Thesis: “Studio di eventi di trasporto di polvere Sahariane mediante Lidar”

PERSONAL SKILLS

Mother tongue(s)

Italian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C2	C2	C2	C2	C1
TOEFL					

Communication skills

The work experience at NASA, as well as participation in international projects, has taught me how to work productively in a team of researchers of different nationalities. In addition to developing remarkable communication skills, I have been able to learn to mediate not only linguistically but also culturally so that I can interact with colleagues of the most diverse origins for productive multicultural teamwork.

The work experience as a teacher at Umbc has taught me to relate to students of various nationalities. Participation in international conferences has allowed me to effectively communicate the results of my work effectively to the international scientific community and to compare the results with those of other research groups.

Organisational / managerial skills

The organization for publishing articles has given me the opportunity to develop synthesis and effectiveness in presenting the results of my work, focusing on the features important for the whole scientific community.

I participated in the foundation of the Astrophiles Association Idra, which gave me the opportunity to experience the administrative organization of a non-profit association. At the moment I am vice-president of the cultural association Provediemozioni.it.

Job-related skills Operating systems: familiar with the WINDOWS, LINUX and MACINTOSH.
 Software: Good mastership of software package of OFFICE and scientific software MATHEMATICA.
 Good programming language in FORTRAN. Good mastership of CDO software for managing files in the netcdf format. Good acquaintance with NCL, MATLAB and OCTAVE analysis software. Sufficient familiarity with graphic creation software, such as GRADS and GNUPLLOT. Good acquaintance with QGIS graphics and statistics software.
 Good mastership of image manipulation software like LIGHTROOM, PHOTOSHOP and GIMP.

Digital competence

SELF-ASSESSMENT				
Information processing	Communication	Content creation	Safety	Problem solving
Proficient User	Proficient User	Basic User	Proficient User	Independent User

Driving licence B

Publications on Scientific Journals

- Vitali L., et al., "A Lagrangian modelling approach to assess the representativeness area of an industrial air quality monitoring station", Atmospheric Pollution Research, Volume 7, Issue 6, November 2016, Pages 990–1003, ISSN 1309-1042.
- Maurizi A. et al., "Local vs. external contribution to the budget of pollutants in the Po Valley (Italy) hot spot", SCIENCE OF THE TOTAL ENVIRONMENT, Volume: 458, Pages: 459-465, DOI: 10.1016/j.scitotenv.2013.04.026, 2013.
- Sakai, T. et al., "Liquid Water Cloud Measurements Using the Raman Lidar Technique: Current Understanding and Future Research Needs", JOURNAL OF ATMOSPHERIC AND OCEANIC TECHNOLOGY, Volume: 30, Issue: 7, Pages: 1337-1353, DOI: 10.1175/JTECH-D-12-00099.1, 2013.
- Colette A. et al., "Future air quality in Europe: a multi-model assessment of projected exposure to ozone", ATMOSPHERIC CHEMISTRY AND PHYSICS, Volume: 12, Issue: 21, Pages: 10613-10630, DOI: 10.5194/acp-12-10613-2012, 2012
- Maurizi A. et al., "Nudging technique for scale bridging in air quality/climate atmospheric composition modelling", Atmos. Chem. Phys. Volume: 12 Issue: 8 Pages: 3677-3685 DOI: 10.5194/acp-12-3677-2012 (2012).
- Colette A., et al., "Air quality trends in Europe over the past decade: a first multi- model assessment", ATMOSPHERIC CHEMISTRY AND PHYSICS Volume: 11 Issue: 22 Pages: 11657-11678 DOI: 10.5194/acp-11-11657-2011 (2011).
- Whiteman D. N., et al., "Airborne and Ground-based Measurements Using a High-Performance Raman Lidar. Part I: Airborne", J. Atmos. Oceanic Technol., 27, 1781–1801. doi: 10.1175/2010JTECHA1391.1 (2010).
- Pappalardo G., et al., "EARLINET correlative measurements for CALIPSO: first intercomparison results" J. Geophys. Res., 115, D00H19, doi:10.1029/2009JD012147 (2009).
- Madonna, F., et al., "Mid-tropospheric supercooled liquid water observation consistent with nucleation induced by a mountain lee wave", Geophys. Res. Lett., 36, L18802, doi:10.1029/2009GL039545 (2009).
- Mona, L. et al., "One year of CNR-IMAA multi-wavelength Raman lidar measurements in correspondence of CALIPSO overpass: Level 1 products comparison", Atmos. Chem. Phys. Discuss., 9, 8429-8468, (2009).
- Russo F., et al., "Validation of Raman lidar algorithm for quantifying aerosol extinction", Appl. Opt. 45, 7073-7088 (2006).

Publications on refereed
Conference Proceedings

- Whiteman, D. N., et al., "Analysis of Raman lidar and radiosonde measurements from the AWEX-G field campaign and its relation to Aqua validation", *J. Geophys. Res.*, 111, D09S09, doi: 10.1029/2005JD006429 (2006).
- Miloshevich, L. M. et al., "Absolute accuracy of water vapor measurements from six operational radiosonde types launched during AWEX-G and implications for AIRS validation", *J. Geophys. Res.*, 111, D09S10, doi: 10.1029/2005JD006083 (2006).
- Russo F., et al., "Measurements Of The Aerosol Indirect Effect With a Raman Lidar", Reviewed and Revised Papers Presented at the 24th International Laser Radar Conference, edited by the Organizing Committee of the 24th International Laser Radar Conference, Part 1, pp. 486-489, 2008.
- Russo F., et al., "Ground Based Measurements for Cloud Studies", Reviewed and Revised Papers Presented at the 24th International Laser Radar Conference, edited by the Organizing Committee of the 24th International Laser Radar Conference, Part 1, pp. 623-626, 2008.
- Russo F., et al., "Application of the Chi-Squared Technique to quantify the Aerosol Extinction with a Raman Lidar", Reviewed and Revised Papers Presented at the 23rd International Laser Radar Conference, Chikao Nagasawa and Nobuo Sugimoto Editors, Part 1, pp. 75-78, 2006.
- Russo F., et al., "Improvement of Raman lidar techniques for quantifying aerosol extinction", *Proceedings of SPIE Optics and Photonics, Lidar remote sensing for Environmental Monitoring VI*, Vol 5887, Upendra N. Singh editor, 18 agosto 2005.
- Russo F., et al., "Development of Raman Lidar Techniques To Address the Aerosol Indirect Effect: Retrieving the Liquid Water content of Clouds", Reviewed and Revised Papers Presented at the 22nd International Laser Radar Conference (ILRC 2004), Gelsomina Pappalardo and Aldo Amodeo Editors, ESA SP-561, Vol. 1, pp. 411-414 ,2004.
- Russo F., et al., "Comparison of Raman Lidar and MicroPulse Lidar Aerosol Measurements", *Lidar Remote Sensing in Atmospheric and Earth Sciences*, Reviewed and Revised papers presented at the 21st International Laser Radar Conference (ILRC21), Luc R. Bissonnette, Gilles Roy and Gilles Valle' Editors, Part 2, pp. 599-602, 2002.

Technical Reports

- F. Russo; Adani, M.; Ciancarella, L.; Piersanti, A.; Vitali, L., (2017). "Micro-scale dispersion modelling with background correction to simulate air quality in Milan", RT/2017/06/ENEA, ISSN 0393-3016, <http://openarchive.enea.it/handle/10840/8525>.
- Ciancarella, L., Adani, M., Briganti, G., Cappelletti, A., Ciucci, A., Cremona, G., D'Elia, I., D'Isidoro, M., Mircea, M., Piersanti, A., Righini, G., Russo, F., Vitali, L., Zanini, G. (2016). "La simulazione nazionale di AMS-MINNI relativa all'anno 2010. Simulazione annuale del Sistema Modellistico Atmosferico di MINNI e validazione dei risultati tramite confronto con i dati osservati". RT/2016/12/ENEA, ISSN 0393-3016.

 Presentations in international
congress

- Piersanti A., et al., "Spatial Representativeness of Air Quality Monitoring Stations in Italy", 15th Conference on Harmonisation within Atmospheric Dispersion Modelling for Regulatory Purposes, Madrid, Spain, (6-9 May 2013).
- Russo F., et al., "Studying the feedback processes in the model BOLCHEM", European Geosciences Union General Assembly 2011, Vienna, Austria (April 3rd -8th 2011).
- Russo F., et al., "The current state of regional import/export budget and air quality modelling in the Po Valley", European Geosciences Union General Assembly 2011, Vienna, Austria (April 3rd -8th 2011).
- Maurizi A., et al., "Scale bridging in atmospheric composition simulation for air quality studies", European Geosciences Union General Assembly 2011, Vienna, Austria (April 3rd -8th 2011).
- Russo F., et al., "Introducing the aerosol feedback process in the model BOLCHEM", European Geosciences Union General Assembly 2010, Vienna, Austria (May 2nd - 7th 2010).
- Russo F., et al., "Measurements of Liquid Water Content with the Atmospheric Radiation

Measurement Program Raman Lidar at Southern Great Plains", ARM Science Team Meeting, Monterey, California, USA (March 26th-30th 2007).

- Russo F., et al., "Comparison of Aerosol Extinction from two Raman Lidars", AGU Joint Assembly, Baltimore MD, USA (May 23rd-26th 2006).
- F. Russo, Whiteman D.N., Demoz B., and Hoff R.M., "Improvement of raman lidar techniques for quantifying aerosol extinction", Proceedings of SPIE - The International Society for Optical Engineering, Volume 5887, San Diego, CA, p.1-4, (2005).
- F. Russo, Whiteman D.N., Demoz B., Veselovskii I., Melfi S.H., and Hoff R.M. "Development of Raman lidar techniques to address the indirect aerosol effect: Retrieving the liquid water content of clouds", European Space Agency, (Special Publication) ESA SP, Volume 1, Number 561, p.411-414, (2004).
- Whiteman, D., Demoz B., Wang Z., Barnet C., Hoff R., McMillan W., Veselovskii I., McCann K., F. Russo, Gambacorta A., et al., "Use of Raman Lidar for Validation of Aqua Retrievals and the Study of AIRS Radiances", International Geoscience and Remote Sensing Symposium (IGARSS), Volume 3, Toulouse, p.1757-1759, (2003).