






PERSONAL INFORMATION	Maria Fabrizia Buongiorno
	<p> Istituto Nazionale di Geofisica e Vulcanologia Via di Vigna Murata 605, 00143 Roma (Italy) <a href="http://www.ingv.it">www.ingv.it</a></p> <p> (+39) 3337614689  (+39)0651860439  (+39) 3357927040</p> <p> <a href="mailto:fabrizia.buongiorno@ingv.it">fabrizia.buongiorno@ingv.it</a></p> <p>Sex Female   Date of birth 07/10/1962   Nationality Italian</p>

POSITION	Director of Technological Research, at Istituto Nazionale di Geofisica e Vulcanologia, Rome Italy
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Maria Fabrizia Buongiorno is Director of Technological Research at Istituto Nazionale di Geofisica e Vulcanologia (INGV) in Rome. Since november 1992, after the experience in Telespazio S.p.A., she contributed actively to the creation of the INGV Remote Sensing Laboratory by coordinating a group of researchers expert in image data analysis to integrate EO data (Optical and SAR) in the various fields of geophysics. Her specific research interests are focused on Optical systems including multispectral and hyperspectral imagers acquiring data in the VIS-TIR range to retrieve specific parameters to study volcanoes and to support environmental applications. She has developed many activities at National and International level to support the development of the EO community, especially by participating to the GEMES/COPERNICUS early development stage as member of the Italian GEMES Steering Committee (2003-2012). In this context she contributed to the definition of the Copernicus Emergency Core Services. Since the very rapid evolution of new image sensors for airborne and spaceborne platforms, in the last 2 decades she worked in close cooperation with Space Agencies and with aerospace industries in order to propose new mission concepts which may improve the understanding of Earth Processes and Climate Change. Since 2017 she has nominated by Italian Government member of National Civil Protection Committee for Crisis Management.

#### **Main career dates**

**2018** Administrative Director for the GRINT Project dedicated to the development of new INGV monitoring infrastructures for Earthquake, Volcanoes and Environment in the Frame of the European Infrastructure EPOS.

**2017** Nominated by Italian Government member of National Civil Protection Committee for Crisis Management

**2014-2017** Nominated by the INGV President Coordinator of INGV Space Observation Infrastructures,

**2013** Nominated by Ministry of Foreign Affairs coordinator (for Italy) of the

bilateral Working Group for Earth Science in the frame of USA-ITALY JCM in Science and Technology.

**2005-2014** Nominated Coordinator of INGV Remote Sensing Activities and responsible for the contribution in the specific sector in the annual review and planning strategy document for Ministry of Research and Civil Protection.

**2006-2014** Head of the Remote Sensing Unit, INGV National Earthquake Centre,

**2003-2006** Head of the Geodesy and Remote Sensing Unit, INGV National Earthquake Centre

**2003** She won a public competition for the position of Director Technological Research in the National Earthquake Centre Section at INGV.

**2000** She won a public competition for a First researcher level at Istituto Nazionale di Geofisica e Vulcanologia (INGV) in the Remote Sensing Laboratory

**1998** She won a public competition for a permanent researcher position at INGV in the Remote Sensing Laboratory

**1992-1998** researcher under contract at Istituto Nazionale di Geofisica where She developed application of remote sensing optical data to volcanoes with particular interests to the development of retrieval techniques for SO<sub>2</sub> concentration in volcanic plumes and atmospheric correction of VIS-SWIR-TIR images by means of MODTRAN radiative transfer model.

**1988-1992** Remote Sensing specialist for Environmental application using satellite and airborne multispectral and hyperspectral image data at Telespazio Company.

#### Selection of publications:

Buongiorno M.F., Silvestri M., Pieri David (2013) Thermal Analysis of Volcanoes Based on 10 Years of ASTER Data on Mt.Etna. Chapter on Springer Book: Thermal Infrared Remote Sensing sensor and applications, Series: Remote Sensing and Digital Image Processing, Vol. 17 Springer Books, pp 409-428.

Jorge Andres Diaz, David Pieri, Kenneth Wright, Paul Sorensen, Robert Kline-Shoder, Richard Arkin, Matthew Fladland, Geoff Bland Maria Fabrizia Buongiorno, Carlos Ramirez, Ernesto Corrales, Alfredo Alan, Oscar Alegria, David Diaz, Justin Linick (2015) Unmanned Aerial Mass Spectrometer Systems for In-Situ Volcanic Plume Analysis, ISSN 1044-0305, Volume 26, Number 2, J. Am. Soc. Mass Spectrom. (2015), DOI 10.1007/s13361-014-1058, pp 292-304.

Costanzo A., M. Minasi, G. Casula, M. Musacchio, M.F. Buongiorno, (2015). Combined Use of Terrestrial Laser Scanning and IR Thermography Applied to a Historical Building. Sensors, 15, 194-213 doi:10.3390/s150100194.

Antonio Costanzo, Antonio Montuori, Juan Pablo Silva, Malvina Silvestri, Massimo Musacchio Fawzi Doumaz, Salvatore Stramondo and Maria Fabrizia

Buongiorno (2016) : The Combined Use of Airborne Remote Sensing Techniques within a GIS Environment for the Seismic Vulnerability Assessment of Urban Areas:An Operational Application. Remote Sens. 2016, 8, 146; doi:10.3390/rs8020146.

M. Silvestri, C. Cardellini, G. Chiodini, and M. F. Buongiorno. (2016). Satellite-derived surface temperature and in situ measurement at Solfatara of Pozzuoli (Naples, Italy), *Geochem.Geophys. Geosyst.*, 17, 2095–2109,doi:10.1002/2015GC006195.

Neri M., De Maio M., Crepaldi S., Suozzi E., Lavy M., Marchionatti F., Calvari S., Buongiorno M.F., (2017). Topographic Maps of Mount Etna's Summit Craters, updated to December 2015, *Journal of Maps* Vol. 13 , Iss. 2, <http://dx.doi.org/10.1080/17445647.2017.1352041> .

Malvina Silvestri, Federico Rabuffi, Antonino Pisciotta, Massimo Musacchio, Iole Serena Diliberto, Claudia Spinetti, Valerio Lombardo, Laura Colini and Maria Fabrizia Buongiorno. Analysis of Thermal Anomalies in Volcanic Areas Using Multiscale and Multitemporal Monitoring: Vulcano Island Test Case. *Remote Sens.* 2019, 11(2), 134; <https://doi.org/10.3390/rs11020134> .