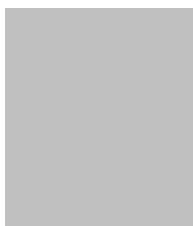


PERSONAL INFORMATION

Iolanda Gaudiosi



National Research Council, CNR
 Institute of Environmental Geology and Geoengineering, IGAG
 Area della Ricerca di Roma 1
 via Salaria km 29,300 – 00015
 Monterotondo (Roma)

iolanda.gaudiosi@cnr.it

<https://www.igag.cnr.it/personale/iolanda-gaudiosi/>

Sex Female | Date of birth 04/07/1984 | Nationality Italian

Enterprise	University	EPR
<input type="checkbox"/> Management Level	<input type="checkbox"/> Full professor	<input type="checkbox"/> Research Director and 1st level Technologist / First Researcher and 2nd level Technologist / Principal Investigator
<input type="checkbox"/> Mid-Management Level	<input type="checkbox"/> Associate Professor	<input checked="" type="checkbox"/> Level III Researcher and Technologist
<input type="checkbox"/> Employee / worker level	<input type="checkbox"/> Researcher and Technologist of IV, V, VI and VII level / Technical collaborator	<input type="checkbox"/> Researcher and Technologist of IV, V, VI and VII level / Technical collaborator

WORK EXPERIENCE

30th July 2020 - ongoing

Researcher, permanent position

CNR - IGAG, Institute of Environmental Geology and Geoengineering

- Research activity in the development of novel approaches and procedures capable of including site effects in seismic hazard maps and risk scenarios;
- Responsible of the Laboratory GeALab – Laboratory for Geophysics Applied to the environmental geology, the heritage and the earthquake engineering of the Istituto di Geologia Ambientale e Geoingegneria, CNR IGAG. Provvedimento n. 19/05/03/2020 (Prot. CNR IGAG Num. 00671 of the 06/03/2020);
- Scientific coordinator of the Project EEWS between the DIPARTIMENTO DI INGEGNERIA ELETTRONICA, UNIVERSITÀ DI TOR VERGATA and the CNR IGAG - Prot. CNR IGAG 3870/2021/17/12/2021, Prot. TORVERGATA n. 3015/ 17/12/2021;
- Scientific coordinator of the Project between the Istituto di Scienze del Patrimonio Culturale and the CNR IGAG. Prot. CNR IGAG Num. 3071/2022/ 11/11/2022;
- WorkPackage 3 Coordinator for the activities carried out in the framework the Project PRIN2020, Prot. 2020MMCPER, Mapping seismic site effects at regional and national scale - SERENA", funded with Ministerial Decree N.223 of the 18/02/2022;
- WorkPackage 1 Coordinator for the activities carried out in the Project between the CNR-IGAG and the Dipartimento Protezione Civile Nazionale (DPC): "Accordo ai sensi dell'art. 15 DELLA L. 241/1990 tra la Presidenza del Consiglio dei Ministri Dipartimento della Protezione Civile e il C.N.R. IGAG per il supporto al Dipartimento di Protezione Civile per la programmazione degli interventi di riduzione del rischio sismico ai fini di protezione civile".

Sector: Public Research

16th March 2018 – 29th July 2020

Researcher, temporary position

CNR - IGAG, Institute of Environmental Geology and Geoengineering

- Research activity in the development of novel approaches and procedures capable of including site effects in seismic hazard maps and risk scenarios;
- Responsible for the activities of the Task 4 in the Project between DPC/ReLUIS and the CNR IGAG;
- Vice-chairperson (Vice-capo Progetto) of the Project: "Supporto e coordinamento scientifico per la realizzazione degli studi di microzonazione sismica di III livello nei territori dei Comuni dell'isola di Ischia interessati dall'evento sismico del 21 agosto 2017". Progetto DTA.AD003.378 (Convenzione tra CNR IGAG e Commissario Straordinario del Governo per la ricostruzione nei territori dell'isola di Ischia);

Sector: Public Research

October 2015 – 15th March 2018

Research fellowship

CNR - IGAG, Institute of Environmental Geology and Geoengineering

- Numerical simulations for estimating site ground motion;
- Support activities in the execution of geophysical surveys (1D and 2D arrays) and their interpretation;
- Member of the coordinating Committee of the "ORDINANZA N. 24 DEL 12 MAGGIO 2017 NEI COMUNI INTERESSATI DAGLI EVENTI SISMICI VERIFICATISI A FAR DATA DAL 24 AGOSTO 2016".

Sector: Public Research

1st July 2013 – October 2015

Researcher, temporary position

INGV, Istituto Nazionale di Geofisica e Vulcanologia

Sede di Rende (CS)

- Support activities in the execution of geophysical surveys (1D and 2D arrays) and their interpretation;
- Research in the field of dynamic characterization of S-wave velocity profiles;
- Numerical simulations for estimating site ground motion;
- Evaluation of buildings resonance frequencies of the modal shapes from ambient vibration data by applying OMA (Operational Modal analyzes) methods;
- Support activities in seismic stations installation and data processing;
- Support in populating a geodatabase within SQLserver and defining a metadata catalogue that organizes spatially georeferenced products.

Sector: Public Research**EDUCATION AND TRAINING**

7th April 2014

PhD

Università degli Studi dell'Aquila

- Prevention and mitigation of environmental and seismic risks for new and existing buildings

WORK ACTIVITIES**Awards**

Fondazione Sapienza, "Antonio Ventura" award for graduate students of the Faculty of Engineering; date: 15/01/2011

Editorial activity

Guest Editor of the Special Issue on "Seismic Microzonation in central Italy", edited by Bulletin of Earthquake Engineering, Volume 18, issue 12

Patents

Member of the "Nucleo Nazionale Ingegneri Agibilitatori", the Italian national board for residential buildings verifications after earthquakes

ADDITIONAL INFORMATION**Publications**

total number of publications in peer-review journals: 22

total number of citations (Scopus): 181

H index: 8

Relevant publications**Articles in JCR Journals**

Amoroso, S., **Gaudiosi, I.**, Tallini, M., Di Giulio, G. & Milana, G. 2018, "2D site response analysis of a cultural heritage: the case study of the site of Santa Maria di Collemaggio Basilica (L'Aquila, Italy)", Bulletin of Earthquake Engineering, vol. 16, no. 10, pp. 4443-4466.

Caielli, G., Maffucci, R., de Franco, R., Bigi, S., Parotto, M., Mollica, R., Gaudiosi, I., Simionato, M., Romanelli, M., De Marchi, N., Cavinato, G.P. 2023, "Fucino Basin structure revealed by the tomography and the reusing of the CROP11 seismic data", Tectonophysics 865,230043

di Giulio, G., **Gaudiosi, I.**, Cara, F., Milana, G. & Tallini, M. 2014, "Shear-wave velocity profile and seismic input derived from ambient vibration array measurements: The case study of downtown L'Aquila", *Geophysical Journal International*, vol. 198, no. 2, pp. 848-866.

Gaudiosi, I., Romagnoli, G., Albarello, D., Fortunato C., Imprescia P., Stigliano, F., Moscatelli, M. 2023, "Shear modulus reduction and damping ratios curves joined with engineering geological units in Italy", *Scientific Data* 10(1), 625

Gaudiosi, I., Giuffrè, M., Benigni, M.S., Cavinato, G.P., Di Salvo, C., Mancini, M., Moscatelli, M., Pennica, F., Peronace, E., Polpetta, F., Porchia, A., Simionato, M., Sterlacchini, S., Stigliano, F., Varone, C. & Versino, F. 2022, "From the Institute of Environmental Geology and Geoengineering of the National Research Council (CNR IGAG) to schools: introducing cultural heritage into classrooms to foster awareness about natural risk prevention", *Rendiconti Online Società Geologica Italiana*, vol. 58, pp. 9-15.

Gaudiosi, I., Simionato, M., Mancini, M., Cavinato, G.P., Coltella, M., Razzano, R., Sirianni, P., Vignaroli, G. & Moscatelli, M. 2021, "Evaluation of site effects at Amatrice (central Italy) after the August 24th, 2016, Mw 6.0 earthquake", *Soil Dynamics and Earthquake Engineering*, vol. 144.

Gaudiosi, I., Francesco, D.M., Giuliano, M. & Marco, T. 2014, "Site effects in the Aterno River Valley (L'Aquila, Italy): Comparison between empirical and 2D numerical modelling starting from April 6th 2009 Mw 6.3 earthquake", *Bulletin of Earthquake Engineering*, vol. 12, no. 2, pp. 697-716.

Gaudiosi, I., Vignaroli, G., Sirianni, P., Giallini, S., Mori, F., Polpetta, F., Razzano, R., Simionato, M. & Moscatelli, M. 2016, "Local seismic response studies in the north-western portion of the august 24th, 2016 Mw 6.0 earthquake affected area. the case of visso village (central apennines)", *Annals of Geophysics*, vol. 59, no. FASTTRACK5.

Giallini, S., Paolucci, E., Sirianni, P., Albarello, D., **Gaudiosi, I.**, Polpetta, F., Simionato, M., Stigliano, F., Tsereteli, N., Gogoladze, Z. & Moscatelli, M. 2021, "Reconstruction of a reference subsoil model for the seismic microzonation of gori (Georgia): A procedure based on principal component analysis (PCA)", *Bulletin of the Seismological Society of America*, vol. 111, no. 4, pp. 1921-1939.

Giustini, F., Brilli, M., Carlucci, G., Ciotoli, G., **Gaudiosi, I.**, Mancini, M. & Simionato, M. 2023, "Geophysical and geochemical multi-method investigations for reconstructing subsurfaces, alluvial sedimentology, and structural geology (Tiber valley, Rome)", *International Journal of Earth Sciences*, vol. 112, no. 1, pp. 197-216.

Livani, M., Scrocca, D., **Gaudiosi, I.**, Mancini, M., Cavinato, G.P., de Franco, R., Caielli, G., Vignaroli, G., Romi, A. & Moscatelli, M. 2022, "A geology-based 3D velocity model of the Amatrice Basin (Central Italy)", *Engineering Geology*, vol. 306.

Mancini, M., Cacioli, M.C., **Gaudiosi, I.**, Alleanza, G.A., Cavuoto, G., Coltella, M., Cosentino, G., Di Fiore, V., d'Onofrio, A., Gargiulo, F., Milana, G., Pietrosante, A., Pompa, P.P., Silvestri, F. & Vassallo, M. 2021, "Seismic microzonation in a complex volcano-tectonic setting: The case of northern and western Ischia Island (southern Italy)", *Italian Journal of Geosciences*, vol. 140, no. 3, pp. 382-408.

Mancini, M., Skrame, K., Simionato, M., Muçi, R., **Gaudiosi, I.**, Moscatelli, M. & Daja, S. 2021, "Site characterisation in Durres (Albania) from a seismic microzonation perspective", *Bulletin of Geophysics and Oceanography*, vol. 62, no. 1, pp. 33-60.

Montuori, A., Luzi, G., Bignami, C., **Gaudiosi, I.**, Stramondo, S., Crosetto, M. & Buongiorno, M.F. 2016, "The Interferometric Use of Radar Sensors for the Urban Monitoring of Structural Vibrations and Surface Displacements", *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*, vol. 9, no. 8, pp. 3761-3776.

Montuori, A., Costanzo, A., **Gaudiosi, I.**, Vecchio, A., Apa, M.I.P., Gervasi, A., Falcone, S., La Piana, C., Minasi, M., Stramondo, S., Buongiorno, M.F., Doumaz, F., Musacchio, M., Casula, G., Caserta, A., Speranza, F., Bianchi, M.G., Guerra, I., Porco, G., Compagnone, L. & Cuomo, M. 2016, "The MASSIMO system for the safeguarding of historic buildings in a seismic area: Operationally-oriented platforms", *European Journal of Remote Sensing*, vol. 49, pp. 397-415.

Mori, F., **Gaudiosi, I.**, Tarquini, E., Bramerini, F., Castenetto, S., Naso, G. & Spina, D. 2020, "HSM: a synthetic damage-constrained seismic hazard parameter", *Bulletin of Earthquake Engineering*, vol. 18, no. 12, pp. 5631-5654.

Moscatelli, M., Vignaroli, G., Pagliaroli, A., Razzano, R., Avallè, A., **Gaudiosi, I.**, Giallini, S., Mancini, M., Simionato, M., Sirianni, P., Sottili, G., Bellanova, J., Calamita, G., Perrone, A., Piscitelli, S. & Lanzo, G. 2021, "Physical stratigraphy and geotechnical properties controlling the local seismic response in explosive volcanic settings: the Stracciaccappa maar (central Italy)", *Bulletin of Engineering Geology and the Environment*, vol. 80, no. 1, pp. 179-199.

Muci, R., Skrame, K., Fociro, O., Mancini, M., **Gaudiosi, I.** & Simionato, M. 2021, "Effect of cement and fly-ash on the geotechnical properties of expansive clay soils", Italian Journal of Geosciences, vol. 140, no. 1, pp. 1-13.

Tentori, D., Mancini, M., Varone, C., Spacagna, R., Baris, A., Milli, S., **Gaudiosi, I.**, Simionato, M., Stigliano, F., Modoni, G., Martelli, L. & Moscatelli, M. 2022, "The influence of alluvial stratigraphic architecture on liquefaction phenomena: A case study from the Terre del Reno subsoil (southern Po plain, Italy)", Sedimentary Geology, vol. 440.

Varone, C., Carbone, G., Baris, A., Caciolli, M.C., Fabozzi, S., Fortunato, C., Gaudiosi, I., Giallini, S., Mancini, M., Paoletta, L., Simionato, M., Sirianni, P., Spacagna, R. L., Stigliano, F., Tentori, D., Martelli, L., Modoni, G., Moscatelli, M. 2023, "PERL: a dataset of geotechnical, geophysical, and hydrogeological parameters for earthquake-induced hazards assessment in Terre del Reno (Emilia-Romagna, Italy)", Natural Hazards and Earth System Sciences 23(4), pp. 1371-1382

Vignaroli, G., Giallini, S., Polpetta, F., Sirianni, P., **Gaudiosi, I.**, Simionato, M., Razzano, R., Pagliaroli, A., Moscatelli, M., Mancini, M., Cavinato, G.P. & Avalue, A. 2019, "Domains of seismic noise response in faulted limestone (central Apennines, Italy): insights into fault-related site effects and seismic hazard", Bulletin of Engineering Geology and the Environment, vol. 78, no. 4, pp. 2749-2768.

Vignaroli, G., Mancini, M., Bucci, F., Cardinali, M., Cavinato, G.P., Moscatelli, M., Putignano, M.L., Sirianni, P., Santangelo, M., Ardizzone, F., Cosentino, G., Di Salvo, C., Fiorucci, F., **Gaudiosi, I.**, Giallini, S., Messina, P., Peronace, E., Polpetta, F., Reichenbach, P., Scionti, V., Simionato, M. & Stigliano, F. 2019, "Geology of the central part of the Amatrice Basin (Central Apennines, Italy)", Journal of Maps, vol. 15, no. 2, pp. 193-202.

Chapter in Books

Gaudiosi, I., Madiari, C., Simionato, M., Tommasi, P. (2020) Indagini in situ e prove down-hole in: Gruppo di lavoro Protocolli di acquisizione ed elaborazione dati relativi alle attività di Microzonazione Sismica di livello 3 in Italia Centrale, Roma, 2020. ISBN: 978-88-8080-407-9, Cnr Edizioni, 2020 Roma, da p. 34 a p. 50. https://doi.org/10.32053/PROTOCOLLI_ACQUISIZIONE_ED_ELABORAZIONE_DATI_RELATIVI_ALLE_ATTIVITA_D_I_MICROZONAZIONE_SISMICA_LIVELLO3_ITALIA_CENTRALE-2020.

Moscatelli M., **Gaudiosi I.**, Razzano R., Lanzo G., Callisto L. (2020) Modellazione numerica tridimensionale della risposta sismica dell'abitato di Amatrice, in: Progetto SISMI-DTC LAZIO, Conoscenze e innovazioni per la ricostruzione e il miglioramento sismico dei centri storici del Lazio, a cura di Lucina Caravaggi (Macerata: Quodlibet Studio, Città e paesaggio, 2020), da p. 114 a p.119, ISBN 978-88-229-0557-4

Tsereteli, N., Moscatelli, M., Albarello, D., **Gaudiosi, I.**, Giallini, S., Gogoladze, Z., Polpetta, F., Simionato, M., Stigliano, F., Svanadze, D., Danciu, L., Varazanashvili, O. & Gaprindashvili, G. 2021, Preliminary results of site effects assessment in mtskheta (Georgia). Chapter in: Building Knowledge for Geohazard Assessment and Management in the Caucasus and other Orogenic Regions. Editors: Fabio Luca Bonali, Federico Pasquaré Mariotto, Nino Tsereteli. Editor (publisher): NATO Science for Peace and Security Series C: Environmental Security book series (NAPSC), da p. 345 a p. 365. ISSN 18746519.

Special Issue

Hailemikaël, S., Amoroso, S. & Gaudiosi, I. 2020, "Guest editorial: seismic microzonation of Central Italy following the 2016–2017 seismic sequence", Bulletin of Earthquake Engineering, vol. 18, no. 12, pp. 5415-5422.

Articles in Journals no JCR

Gaudiosi I., Mancini m., Caielli G., de Franco R., Moscatelli M., Stigliano F. (2023) Microzonazione sismica. Quali scenari per il futuro? Da p. 50 a p. 51 in: GEOLOGICAMENTE MAGAZINE DI ATTUALITÀ E CULTURA DELLE GEOSCIENZE, n. 10, marzo 2023. ISSN: 2705-0149

Gaudiosi, I., Caserta A., Porco G., Govoni A., Galli G., Piersanti M.. 2015, "Frequencies identification from ambient vibration data in a masonry heritage building", Il Giornale delle Prove non Distruttive Monitoraggio Diagnostica ,da p. 35 a p. 42, ISSN 1721-7075.

Di Luzio, E., Schilirò, L. & **Gaudiosi, I.** 2021, "Cultural heritage and rockfalls: Analysis of multi-scale processes nearby the lucus angitia archaeological site (central Italy)", Geosciences (Switzerland), vol. 11, no. 12.

Date: 15th November 2023

