

**EUROPEAN
CURRICULUM VITAE
FORMAT**



PERSONAL INFORMATION

Name

GUGLIELMO GRECHI

Address

Telephone

Fax

E-mail

Nationality

Italian

Date of birth

WORK EXPERIENCE

• Dates (from – to)

• Name and address of employer

Januray 2024 – January 2026

Sapienza University of Rome, Department of Earth Sciences

Faculty of Mathematical, Physical and Natural Sciences

P.le Aldo Moro 5, 00185, Rome, Italy

University and research

Postdoctoral research scholar

Multiphysics and numerical modelling approaches for slope stability analyses in archeological sites

• Dates (from – to)

• Name and address of employer

June 2022 – July 2023

University of Utah, Department of Geology and Geophysics

115 S 1460 E, Salt Lake City, Utah 84112, United States of America

University and research

Postdoctoral research scholar

Structural health monitoring of natural rock arches through ambient seismic noise monitoring and 3D numerical modal analysis

• Dates (from – to)

• Name and address of employer

November 2018 – March 2022

Sapienza University of Rome, Department of Earth Sciences

Faculty of Mathematical, Physical and Natural Sciences

P.le Aldo Moro 5, 00185, Rome, Italy

• Type of sector

Doctoral School “Vito Volterra” – PhD in Earth Sciences

• Position held

Research assistant – external research assistant

• Main activities and responsibilities

- Integrated geotechnical and geophysical monitoring techniques applied to slope stability
- 3D eigenfrequency numerical modeling for dynamic characterization of freestanding natural rock structures
- Digital photogrammetry and infrared thermography for the reconstruction and characterization of 3D models of rock mass outcrops

- Dates (from – to)
- Nome and address of employer
- Type of sector
- Position held
- Main activities and responsibilities

EDUCATION AND TRAINING

- Dates (from – to)
- Title of qualification awarded
- Name and type of organization providing education
- Principal subjects/occupational skills covered
- Official length of the programme
 - Date of graduation
 - Final grade
- Level in national classification
 - Title of the thesis
 - Supervisor
- Dates (from – to)
- Title of qualification awarded
- Name and type of organization providing education

- Principal subjects/occupational skills covered
- Official length of the programme
 - Date of graduation
 - Final grade
- Level in national classification
 - Title of the thesis
 - Supervisors
- Dates (from – to)
- Title of qualification awarded
- Name and type of organization providing education and training

- Principal subjects/occupational skills covered
- Official length of the programme
 - Date of graduation
 - Final grade
- Level in national classification

Aprile 2017 – Giugno 2017

ACEA ELABORI SPA – Acea Engineering Laboratories Research Innovation
165, Via Vitorchiano, 00189, Rome, Italy
Engineering
Trainee

Processing and analysis of geological data derived from in situ geotechnical and geophysical tests acquired during the preliminary design stage of a hydroelectric plant.

October 2018– March 2022

Ph.D. in Engineering Geology (GEO/05)

Sapienza University of Rome, Department of Earth Sciences
Faculty of Mathematical, Physical and Natural Sciences
P.le Aldo Moro 5, 00185, Rome, Italy

Engineering geology, applied geophysics, passive seismic monitoring, remote sensing, slope stability, numerical modeling

3 academic years

24/03/2022

Excellent

Doctoral degree

Nonlinear strain effects induced by thermal forcings in jointed rock masses

Prof. Salvatore Martino

October 2015 – December 2017

MSc in Engineering Geology, Land Use Management and Georisks

Sapienza University of Rome, Department of Earth Sciences
Faculty of Mathematical, Physical and Natural Sciences
P.le Aldo Moro 5, 00185, Rome, Italy

Engineering geology, applied geophysics, geomorphological survey and GIS applications, slope stability, soil and rock mechanics, applied hydrogeology, volcanology, geotechnical engineering, applied geochemistry

2 academic years

21/12/2017

110/110 with honors

Master degree – Second Cycle

Analysis of the thermomechanical behaviour of an unstable quarry wall affected by rockfalls through multiparametric monitoring and numerical modeling

Prof. Salvatore Martino, Dott. Gian Marco Marmoni, Dott. Matteo Fiorucci

October 2012 – December 2015

BSc in Earth Sciences

Sapienza University of Rome, Department of Earth Sciences
Faculty of Mathematical, Physical and Natural Sciences
P.le Aldo Moro 5, 00185, Rome, Italy

Physics, paleontology, petrography, geochemistry geomorphology, geophysics, geological mapping, applied geology, hydrogeology, volcanology

3 academic years

17/12/2015

106/110

Bachelor degree – First Cycle

- Title of the thesis *Geomechanical survey of an unstable area in the north-western sector of Mount Epomeo (Ischia)*
- Supervisors Prof. Salvatore Martino, Dott. Gian Marco Marmoni

AWARDS AND HONORS

- Date 19/06/2025
- Award ISRM best paper award at EUROCK2025 Conference, Trondheim (Norway), 16–20 June 2025: Feliziani, F., Marmoni, G.M., Grechi, G., Montagnese, M., Sohmani, R., Istrati, D., Martino, S. (2025) Measuring and modelling the sea-waves impact on a cliff: first results from the Ventotene Field Laboratory (Italy). Proceedings to ISRM International Symposium Eurock 2025 – Expanding the Underground Space, Trondheim, Norway, 16–20 June 2025.
- Date 16/04/2018
- Award Certificate of “Sapienza Excellent Graduate Student” awarded by *Fondazione Sapienza* and *Associazione NoiSapienza Alumni*

PERSONAL SKILLS AND COMPETENCES

MOTHER TONGUE **ITALIAN**

OTHER LANGUAGES

- ENGLISH**
- Reading skills Proficient user (C1)
 - Writing skills Independent user (C1)
 - Verbal skills Proficient user (C1)

SOCIAL SKILLS AND COMPETENCES
 Good communicational and relational skills gained throughout the experience in a dynamic environment such as a University Department.

COMPUTER SKILLS
 P – Proficient user
 A – Advanced user
 B – Basic user

Operating Systems: *Microsoft Windows* (P), *Linux* (B), *MacOS* (P)

Productivity Applications: *Microsoft Office Suite – Word, Excel, PowerPoint, Outlook, Access, OneNote* (P), *ADOBE Suite* (P)

Geographic Information System (GIS): *ESRI ArcGis* (A), *Quantum GIS* (A)

Programming Languages: *Matlab* (P), *Python* (A), *Bash* (B)

Numerical Modeling: *ITASCA Flac 7.0 – Flac 8.0* (A), *COMSOL MULTIPHYSICS* (P)

Graphic Design: *ADOBE Illustrator* (P), *ADOBE Photoshop* (P), *AUTODESK AutoCAD* (A)

DRIVING LICENCE(S) Italian Category B (cars)
 APR (cat. A1–A3)

PUBLICATIONS

- Grechi, G., & Martino, S. (2019).** Preliminary results from multitemporal infrared thermography surveys at the Wied Il-Mielah rock arch (island of Gozo). *Italian Journal of Engineering Geology and Environment*, 1(1), 41–46. <https://doi.org/10.4408/IJEGE.2019-01.S-07>.
- Marmoni, G. M., Fiorucci, M., **Grechi, G., & Martino, S. (2020).** Modelling of thermo-mechanical effects in a rock quarry wall induced by near-surface temperature fluctuations. *International Journal of Rock Mechanics and Mining Sciences*, 134(March), 104440. <https://doi.org/10.1016/j.ijrmms.2020.104440>.
- Grechi, G., & Martino, S. (2021).** Multimethodological Study of Non-linear Strain Effects Induced by Thermal Stresses on Jointed Rock Masses. In *Understanding and reducing landslide disaster risk. Catastrophic landslides and frontiers of landslide Science* (pp. 315–321). https://doi.org/10.1007/978-3-030-60319-9_35.
- Grechi, G., Fiorucci, M., Marmoni, G. M., & Martino, S. (2021).** 3D Thermal Monitoring of Jointed Rock Masses through Infrared Thermography and Photogrammetry. *Remote Sensing*, 13(5). <https://doi.org/10.3390/rs13050957>.
- Grechi, G., Fernandes, J. R., Hu, J.-P., Le Gallais, A.-C., Sampieri, H., Amato, G., D'Angiò, D., Fiorucci, M., Iannucci, R., Marmoni, G. M., & Martino, S. (2022).** Explorative data analysis from multiparametric monitoring at the Acuto Field Laboratory (Central Italy) for detecting preparatory conditions to rock block instabilities. *Italian Journal of Engineering Geology and Environment*, (2), 59– 77. <https://doi.org/10.4408/IJEGE.2022-02.O-05>
- Grechi, G. (2022).** Nonlinear strain effects induced by thermal forcing on jointed rock masses - PhD Thesis, Sapienza University of Rome, <https://hdl.handle.net/11573/1623181>
- Grechi, G., D'Angiò D., & Martino S. (2023).** Analysis of Thermally Induced Strain Effects on a Jointed Rock Mass through Microseismic Monitoring at the Acuto Field Laboratory (Italy). *Applied Sciences* 13, no. 4: 2489. <https://doi.org/10.3390/app13042489>.
- Grechi, G., Moore, J. R., Jensen, E. K., McCreary, M. E., Czech, T. L., and Festin, M. M. (2024).** Modal Analysis of a Lava Tube Roof Complex: Tabernacle Hill, Utah, USA, *Rock Mech. Rock Eng.*, 57, 1–10, <https://doi.org/10.1007/s00603-024-03868-9>.
- Qian, Y., Fiorucci, M., Marmoni, G.M., Li, Q., Hussain, Y., **Grechi, G., Martino, S. (2024).** Impact of environmental stressors on jointed rock cliffs by acoustic emission sensing: preliminary findings from the Acuto Field Laboratory (Central Italy). *Rock Mechanics and Rock Engineering*, 58: 1649–1568. <https://doi.org/10.1007/s00603-024-04250-5>.
- Feliziani F., Marmoni, G.M., Gianni, V., Ferrandes, A., Pegurri, A., **Grechi, G., Felli, G., Ciampi, P., Bozzano, F., Delpino, C., Arrighi, C., Martino, S. (2024).** Engineering-geological modelling as a tool for archaeological site preservation strategies. *Italian Journal of Engineering Geology and Environment*, Special Issue 1, 2024, 115–126. <https://doi.org/10.4408/IJEGE.2024-01.S-13>.
- Conati Barbaro, C., Fiorucci, M., **Grechi, G., Forti, L., Marmoni, G.M., Martino, S. (2024).** Safeguarding archaeological excavations and preserving cultural heritage in cave environments through engineering geological and geophysical approaches. *Journal of Archaeological Science: Reports*, 60–104868. <https://doi.org/10.1016/j.jasrep.2024.104868>.
- Moore, J.R., Jensen, E.K., Quirk, B.J., **Grechi, G., Dzubay, A. (2024).** Insolation cycles control the timing and pattern of resonance Frequency Drifts at a Natural Rock Tower, Utah, USA. *Seismica*. <https://doi.org/10.26443/seismica.v3i2.1375>.
- Galone, L., Feliziani, F., Colica, E., Fucks, E., Galindo-Zaldivar, J., Gauci, R., Gauci, C., **Grechi, G., Martino, S., Rivero, L., D'Amico, S. (2024).** Evolution of coastal cliffs characterized by lateral spreading in the Maltese archipelago. *Remote Sensing*, 16, 3072. <https://doi.org/10.3390/rs16163072>.

Grechi, G., Moore, J.R., McCreary, M.E., Jensen, E.K., Martino, S. (2025). Identifying fracture-controlled resonance modes for structural health monitoring: insights from Hunter Canyon Arch (Utah, USA). *Earth Surface Dynamics*, 13, 81–95. <https://doi.org/10.5194/esurf-13-81-2025>.

Cerra, D., Gege, P., Plattner, S., Feliziani, F., **Grechi, G.**, Marmoni, G.M., Bozzano, F., Martino, S. (2025). Remote sensing-supported monitoring of natural and anthropogenic hazards to cultural heritage in Ventotene and S. Stefano islands, Italy. *Italian Journal of Engineering Geology and Environment. Special Issue 1*, 2025, 65–81. <https://doi.org/10.4408/IJEGE.2025-01.S-05>.

Pegurri, A., Feliziani, F., **Grechi, G.**, Marmoni, G.M., Martino, S., Arrighi, C., Delpino, C., Ferrandes, A. (2025). The Imperial Villa of Punta Eolo (Ventotene) between archaeological evidence and geological assets in a conservation perspective. *Italian Journal of Engineering Geology and Environment. Special Issue 1*, 2025, 83–93. <https://doi.org/10.4408/IJEGE.2025-01.S-06>.

Sokolicek, A., Grechi, G., Tanner, A., Berger, L., Rivellino, S., Montagnese, M., Marmoni, G.M., Hussain, Y., Martino, S. (2025). Engineering-geological and geophysical surveys for archaeological risk assessment in view of mitigation measures at Aegina Kolonna, Greece. *Italian Journal of Engineering Geology and Environment. Special Issue 1*, 2025, 107–122. <https://doi.org/10.4408/IJEGE.2025-01.S-08>.

Colica, E., Galone, L., Gallo, I.G., Robustelli, G., D'Amico, S., Piroddi, L., Martino, S., **Grechi, G.** (2025). Rockfall hazard assessment using UAV photogrammetry and 3D modelling at Selmun Cliff in Malta. *Discover Geoscience*, 3, 240. <https://doi.org/10.1007/s44288-025-00349-6>.

Il sottoscritto, consapevole che le dichiarazioni mendaci comportano l'applicazione delle sanzioni penali secondo quanto previsto dall'art.76 del D.P.R. 445/2000, dichiara che le informazioni riportate nel presente curriculum vitae, redatto in formato europeo, corrispondono a verità.

Il sottoscritto autorizza al trattamento dei dati personali secondo quanto previsto dal D. Lgs. 196/03

Updated on 17/12/2025