

EUROPEAN  
CURRICULUM VITAE  
FORMAT



PERSONAL INFORMATION

Name  
Address  
Telephone  
Fax  
E-mail  
  
Nationality  
Date of birth

CURRICULUM VITAE PER LA PUBBLICAZIONE SUL WEB

**GUGLIELMO GRECHI**

WORK EXPERIENCE

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

**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

**November 2018 – present**

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

Doctoral School “Vito Volterra” – PhD in Earth Sciences  
Research assistant – external research assistant

- 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

**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.

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

## AWARDS AND HONORS

- Date
- Award

16/04/2018

Certificate of “Sapienza Excellent Graduate Student” awarded by *Fondazione Sapienza* and *Associazione NoiSapienza Alumni*

## PERSONAL SKILLS AND COMPETENCES

### MOTHER TONGUE

ITALIAN

### OTHER LANGUAGES

- Reading skills
- Writing skills
- Verbal skills

### ENGLISH

Proficient user (C1)

Independent user (C1)

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)

Data Processing and Analysis: *TESTO IRsoft* (P), *FLIR Tools+* (P), *FLIR Research IR* (A), *Geopsy* (A), *AGISOFT Metashape* (P), *CloudCompare* (P)

Graphic Design: *ADOBE Illustrator* (P), *ADOBE Photoshop* (B), *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>.

D'Angiò, D., Fantini, A., Fiorucci, M., **Grechi, G.**, Iannucci, R., Marmoni, G. M., Martino, S., & Lenti, L. (2020). Multisensor monitoring for detecting rock wall instabilities from precursors to failures: The Acuto test-site (central Italy). *ISRM International Symposium - EUROCK 2020*.

**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](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.**, D'Angiò, D., Fiorucci, M., Iannucci, R., Lenti, L., Marmoni, G. M., and Martino, S. (2021). Integrated geophysical and geotechnical monitoring for multiscale rock mass damaging investigation at the Acuto Field-Lab (Italy), EGU General Assembly 2021, online, 19–30 Apr 2021, EGU21-9403, <https://doi.org/10.5194/egusphere-egu21-9403>, 2021.

**Grechi, G.**, D'Angiò, D., Martino, S., Lenti, L. (2021). Thermomechanical effects in jointed rock masses inferred through microseismic signals analysis. VII AIGA National Congress, Lecco 2021.

**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>

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 (D.lgs. 33/2013 art. 10, 14, 15, 15bis, 27).

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

Updated on 01/11/2023