

Enrico Scarpa

Research for Integrative Numerical Geology team at the GéoRessources Lab.
École Nationale Supérieure de Géologie de Nancy (*ENSG*) · Université de Lorraine, France.
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Research IDs: [Google Scholar](#) — [ResearchGate](#)

Current Position

PhD candidate in Numerical Geology *2021–to date*
École Nationale Supérieure de Géologie de Nancy, France
Advisors: Prof. [Pauline Collon](#), Prof. [Guillaume Caumon](#)

Education

Master of Science in Earth Sciences *2018–2020*
Università degli Studi di Milano, Italy
Dissertation title: Characterization of the karstic network with MPS at the Poitiers site (France)
Advisors: Prof. [Philippe Renard](#), Prof. [Alessandro Comunian](#), Prof. [Mauro Giudici](#)

Exchange Studies Program in Geothermics *2018–2019*
Centre d'Hydrogéologie et de Géothermie de Neuchâtel (CHYN), Switzerland
- Attended a Resource Management course [13 ECTS]
- Master thesis at the Stochastic Hydrogeology and Geostatistics Group [40 ECTS]

Bachelor of Science in Geological Sciences *2014–2017*
Università degli Studi di Milano, Italy
Dissertation title: Numerical simulation of the metamorphic aureole of Bielle Pluton
Advisors: Dr. [Manuel Roda](#), Prof. [Davide Zanoni](#)

Research Experience

- Internship in numerical geology at the ENSG, Université de Lorraine, France *2020 (6 months)*
I conceived a code that preserves the complexity of heterogeneities of channelized architectures systems in reservoir models
- Internship in karst systems at the Hydrasa Laboratory, Université de Poitiers, France *2019 (2 months)*
I focused on the correlation among the geological, geophysical, and hydrogeological data sets to assess the architecture of the karst network at the Hydrogeological Experimental Site
- Internship in data analysis with ArcGIS 10.2 at the Università degli studi di Milano, Italy *2016 (6 months)*
I developed and synthesized a database on GIS platform, based on the field data (structural and petrographical) of the north-eastern margin of the Oligocene Traversella Pluton

Fellowships & Awards

- Best Student Poster Award at 21thIAMG annual meeting, Nancy, France 2022
- Doctoral scholarship funded by Association Scientifique pour la Géologie et ses Applications (ASGA) 2021-2024
- The internship at the ENSG has been funded by ASGA 2020 (6 months)
- The exchange studies at the CHYN funded by Swiss European Mobility Programme 2018-2019 (18 months)

Publications

1. **Scarpa E.**, Collon P., Panfilov I., Caumon G. (2023). Reproduction of channel stacking patterns in geomodeling: metrics and impact of the modeling strategy on reservoir flow behavior (*submitted*)

Students

- Remi LeBlond (BSc in Numerical Geology co-supervisor, ENSG, France) 2022-2023
- Rose Gelard (BSc in Numerical Geology supervisor, ENSG, France) 2022-2023
- Moctar Sow (BSc in Reservoir Engineering supervisor, ENSG, France) 2022-2023
- Cheikh Oumar Ba (BSc in Reservoir Engineering supervisor, ENSG, France) 2022-2023
- Lucie Bertaud (BSc in Numerical Geology supervisor, ENSG, France) 2021-2022
- Abbass Al Sahily (MSc in Reservoir Engineering supervisor, ENSG, France) 2021-2022

Meeting Presentations

Scarpa E., Collon P., Panfilov I., Caumon G. (2023). Reproduction of channel stacking patterns in geomodeling: metrics and impact of the modeling strategy on reservoir flow behavior. RINGMeeting, Nancy (oral).

Scarpa E., Collon P., Panfilova I., Antoine C., Caumon G. (2022). Static and dynamic connectivity analysis of turbidite channel complex architectures. MATHIAS, Paris (poster).

Scarpa E., Collon P., Panfilova I., Antoine C., Caumon G. (2022). Dynamic connectivity measures on turbidite channel complex architectures. 21th Annual Conference of the IAMG, Nancy (poster).

Scarpa E., Collon P., Panfilova I., Antoine C., Caumon G. (2022). Hydrodynamic study of stacked submarine channels. RINGMeeting, Nancy (oral).

Scarpa E., Collon P., Caumon G. (2021). Flow simulations in channelized system with a conventional simulator: impact of grid designs. RINGMeeting, Nancy (oral).

Scarpa E., Collon P., Caumon G. (2020). How to preserve the architectural elements of channelized systems in flow simulation using conventional corner-point grids. RINGMeeting, Nancy (oral).

Fieldwork/Summer Schools/Workshop

- Applied geothermal data analysis, simulation and technologies, Geothermal Rising organization 2022
- Geological CO₂ storage, EAGE learning geoscience 2022
- EG551V/EG552D Reservoir engineering course, University of Aberdeen 2021
- Numerical modeling with Eclipse Schlumberger simulators, Université de Lorraine 2021
- Efficient groundwater modeling using MODFLOW and Python, USGS
Advisors: Dr.[Michael Fienen](#), Dr.[Christian Langevin](#), Dr.[Joseph Hughes](#) 2019
- Introduction to the theory and practice of geostatistical modelling with the PluriGaussian and Multiple-Point Statistics techniques, Université de Neuchâtel
Advisors: Prof.[Philippe Renard](#), Dr.[Julien Straubhaar](#), Dr.[Nasser Madani](#) 2019

- Geothermal field trip in Tuscany, Université de Neuchâtel 2018
- Volcanology summer school “Bruno Capaccioni” in Bolsena caldera, INGV 2018
- ES4801 Geology field camp in Scotland, University of St Andrews 2018 (6 weeks)
Advisor: Dr. [William McCarthy](#)
- Structural fieldwork in Valle d’Aosta, Università degli Studi di Milano 2017
- Petrographic and structural fieldwork at the Adamello Pluton, Università degli Studi di Milano 2016
- Geological field mapping at the southern Alps, Università degli Studi di Milano 2015

Soft Skills

Computer:

- Software:
 - Geographic Information System, QGIS and ArcGIS
 - COMSOL, Multiphysics® Modeling
 - Ar2Gems, Geostatistical Platform
 - SKUA-GOCAD, AspenTech E&P Software
 - ECLIPSE Simulator, Schlumberger Software
- Programming:
 - Python
 - Discrete knowledge of C++

Language:

- Italian: mother tongue
- English: Advanced (in progress)
- French: Intermediate (in progress)