

# 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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## *Current Position*

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

## *Education*

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Master of Science in Earth Sciences *2017–2020*  
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.[Mauro Giudici](#), Prof.[Alessandro Comunian](#)

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

## *Work Experience*

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• 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

## *Grant and Support*

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- 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)

## *Meeting Presentations*

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**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*

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- EG551V/EG552D Reservoir Engineering course, University of Aberdeen 2021
- Efficient groundwater modeling using MODFLOW and Python, USGS 2019  
Advisors: Dr.[Michael Fielen](#), Dr.[Christian Langevin](#), Dr.[Joseph Hughes](#)
- Introduction to the theory and practice of geostatistical modelling with the PluriGaussian and Multiple-Point Statistics techniques, Université de Neuchâtel 2019  
Advisors: Prof.[Philippe Renard](#), Dr.[Julien Straubhaar](#), Dr.[Nasser Madani](#)
- 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*

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### IT:

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

### Language:

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