



Gianluca Lelli

PhD Researcher - Engineering and Information Technology for Structural and Environmental Monitoring and Risk Management (EIT4SEMM)

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Education

2023 - Present

PhD in Engineering and Information Technology for Structural and Environmental Monitoring and Risk Management (EIT4SEMM)

Alma Mater Studiorum - University of Bologna, Bologna, Italy

Project Title: Statistical-based assessment of anthropogenic and climatic influence on long term hydrological series.

Supervisor: Prof. Serena Ceola

Co-supervisor: Prof. Alessio Domeneghetti

2019 - 2022

Master's Degree in Environmental Engineering

Alma Mater Studiorum - University of Bologna

Final Grade: 110/110 cum laude

Thesis Title: Studio dell'influenza delle aree urbanizzate e irrigue sulla perdita di risorsa idrica superficiale in Italia

Supervisor: Dr. Serena Ceola

Co-supervisor: Dr. Irene Palazzoli

2016 - 2019

Bachelor's Degree in Environmental Engineering

Alma Mater Studiorum - University of Bologna

Publications and Presentations

International Journal Publications

A nation-wide classification of the Italian Railway Network susceptibility to flood hazard

Lelli, G.; Ceola, S.; Domeneghetti, A.; Galli, A.; Elisei, E.; Rinaldi, A.; Brath, A.

International Journal of Disaster Risk Reduction 2025, 105946. DOI: 10.1016/j.ijdr.2025.105946

Survey data of damaged residential buildings and business premises from the 2022 record-breaking flood in the Marche region, Italy

Rrokaj, S.; Arrighi, C.; Ballocci, M.; Bertoli, G.; da Porto, F.; De Lucia, C.; Di Bacco, M.; Di Fluri, P.; Domeneghetti, A.; Donà, M.; Gallazzi, A.; Gennaro, A.; Hammouti, M.; Lelli, G.; Mozzon, S.; Petruccelli, N.; Saler, E.; Scorzini, A. R.; Sterlacchini, S.; Treglia, G.; Voltolina, D.; Zazzeri, M.; Molinari, D.

Earth System Science Data 2025, 17(11), 6487-6496. DOI: 10.5194/essd-17-6487-2025

Land cover and spatial distribution of surface water loss hotspots in Italy

Palazzoli, I.; Lelli, G.; Ceola, S.

Sustainability 2024, 16, 8021. DOI: 10.3390/su16188021

Presentations at International Conferences

The role of antecedent temperature in controlling extreme rainfall statistics: multi-temporal and geomorphic patterns across Northern Italy

Lelli, G.; Paschalis, A.; Domeneghetti, A.; Ceola, S.

European Geosciences Union General Assembly 2026, May 3-8, 2026, Vienna, Austria

 Oral presentation | Abstract ID: EGU26-5288 | Session: HS7.8

Reference period matters, so do altitude and geography: understanding trends in rainfall extremes across the Italian landscape

Mazzoglio, P.; Lelli, G.; Domeneghetti, A.; Ceola, S.

European Geosciences Union General Assembly 2026, May 3-8, 2026, Vienna, Austria

 Oral presentation | Abstract ID: EGU26-1025 | Session: HS7.8

Exploring the potential impact of rainfall extreme dynamics on river intersections

Lelli, G.; Mazzoglio, P.; Domeneghetti, A.; Ceola, S.

Italian Hydrological Society Days 2025, September 8-10, 2025, Bari, Italy

 Flash and poster presentation

Rail2flood: a nationwide classification of the Italian Railway Network exposed to flood hazard

 Roland Schlich ECSTS Award

Lelli G., Ceola S., Domeneghetti A., Brath A.

European Geosciences Union General Assembly 2025, April 27-May 2, 2025, Vienna, Austria

 Abstract ID: EGU25-874 | Session: NH9.11

Rail2flood: a nationwide classification of the Italian Railway Network exposed to flood hazard

Lelli G., Ceola S., Domeneghetti A., Brath A.

PhD Days and Marchi Lecture, June 27-28, 2024 Trieste

 Poster presentation

Rail2flood: a nationwide classification of the Italian Railway Network exposed to flood hazard

Lelli G., Ceola S., Domeneghetti A., Brath A.

Italian Hydrological Society Days 2024, June 24-26, 2024 Udine

 Flash and poster presentation

Professional Experience

Sep 2025 - Sep 2026

Teaching Tutor - Hydraulic Constructions

Alma Mater Studiorum - University of Bologna

Master's Degree course in Civil Engineering (Prof. Armando Brath)

Sep 2025 - Feb 2026

Visiting PhD Student

Department of Civil and Environmental Engineering, University of Cyprus - Nicosia, Cyprus

Supervisor: Prof. Athanasios Paschalis

2022 - 2023

Research Fellow

University of Bologna - DICAM

Modeling systems for hydraulic hazard assessment of watercourses

Professional Qualifications

2022

Professional Engineer License

Section A - Civil and Environmental Sector

University of Bologna

Workshops and Training

April 3 - 16, 2025

Gestione dei Rischi Naturali per un Territorio Resiliente - RESILIENT2RISK

Faventia Sales - Faenza (RA), Italy

Advanced training initiative on multi-hazard risk management organized by DICAM (University of Bologna).

Skills

Programming Languages

</> Python

</> R

</> Matlab

Software and Tools

 QGis

 MS Office

 LaTeX

Languages

 Italian (Native)

 English (B2)