

NAPOLITANO LISA

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WORK EXPERIENCE

June 2023 – present: **Researcher at CMCC Foundation (Euro-Mediterranean Centre on Climate Change)**

Division:

- Regional Models and geo-Hydrological Impacts (REMHI)

Main research topics:

- Estimating of Intensity Duration Frequency curves in a climate change perspective
- Hydrological modelling

National and International research projects:

- TheHuT (The Human-Tech Nexus - <https://thehut-nexus.eu/>)
- ACQUAOUNT project (Adapting to Climate change by QUantifying optimal Allocation of water resOURces and socio-ecoNomic inTerlinkages - <https://www.acquaount.eu/>)
- NBFC (National Biodiversity Future Center - <https://www.nbfc.it/en>)

Presentations:

- “Development of an integrated suite for estimating Intensity Duration Frequency curves in a climate change perspective”, Lisa Napolitano, Guido Rianna, Roberta Padulano, and Valentina Francalanci (<https://doi.org/10.5194/egusphere-egu24-15132>) during EGU General Assembly 2024, PICO session: Regional and Global Hydrological Changes in a Changing Climate

July 2021 – May 2023: **Technical officer at Autorità di Bacino distrettuale delle Alpi Orientali (AAWA)** - Palazzo Michiel Dalle Colonne, Cannaregio 4314, 30121, Venice (VE)

Department:

- Flood Risk Planning and Protection - office of Applied Hydrology

Main duties and responsibilities:

- Management of environmental data of competence of the Flood Risk Planning and Protection department, with reference to hydrology and hydraulics applied to the plain area
- Operational management of the technologies necessary for functioning of the Citizens' Observatory on Flood (on-line platform, website and mobile app)
- Hydrological and hydraulic modelling as part of the update of the Flood Risk Management Plan
- Instruction of procedure concerning the request to update the Flood Risk Management Plan
- Active participation in European research projects under the European Framework Program for Research and Innovation (2014 - 2022) HORIZON 2020 (Xr4Drama, aqua3S, WQeMS) and INTERREG (VISFRIM)

Proceedings of international conferences:

- M. Ferri, F. Lombardo, D. Norbiato, R. Fiorin, M. Monego, **L. Napolitano**. 082 – Machine learning techniques and Big Data analysis for flood risk management, assessment of droughts and other extreme climate events: different approaches <https://sites.unica.it/stahy2022/programme/poster/> STAHY2022 - 12th International Workshop on Statistical Hydrology 17 – 20 September 2022, Chia, Sardinia (Italy)

October 2018 – July 2021: **Environmental engineer at Idrostudi s.r.l.** - Area Science Park, Padriciano 99, 34149, Trieste (TS)

Main duties and responsibilities:

- Hydrological and hydraulic modelling
- Analysis of the territory
- Elaboration of pre- and post-construction hydraulic models (1D and 2D) of watercourses for hydraulic risk analysis
- Hydraulic modelling (1D and 2D) of urban drainage network

Main works executed:

- Sewerage network survey service, storm water overflow control, georeferencing and identification of sewerage system connections, 2D hydraulic modelling and network monitoring of the Municipalities of Ostiglia, Carbonara di Po, Borgo Virgilio, San Giorgio Bigarello and Curtatone. Client: Tea Acque
- Implementation of the Integrated Sewage Plan of the networks of the Brianzacque s.r.l. district - "Adjustment programme of sewers and storm water overflow". Client: Brianzacque
- Specialized engineering activities for the elaboration of the sewerage network plan of the municipalities of Busseto, Colorno, Fidenza, Fontanellato, Polesine Zibello, Roccabianca, San Secondo Parmense, Sissa Trecasali, Soragna and Torrile, through hydraulic modelling. Client: Emiliambiente
- Hydraulic study of Meduna River. Client: Sintagma
- Hydraulic study of the Varaita River using two-dimensional modelling in unsteady flow conditions preparatory to the design of the embankment completion works to defend the town of Villanova Solaro. Client: AIPO, Interregional Agency for the Po River
- Hydraulic and hydrological study requested in the tender documentation for the reconstruction of the Mirafiori tunnel crossing the Trebbia River in the municipality of Rivergaro and Gazzola (PC) promoted by the Consortium for Reclamation of Piacenza. Client: I.CO.P.
- Mathematical modelling service of the Piovene Rocchette sewerage network. Client: Viacqua
- Hydrological and hydraulic study of watercourses as part of Final Project of the new Palermo – Catania railway line. Client: Sintagma Engineering – Perugia, Italferr – FS Italiane
- Hydrological and hydraulic study of the Tittadegna River as part of the upgrading and electrification of the Barletta – Canosa di Puglia line. Client: Italferr - FS Italiane
- Fluidynamic simulation of the sewerage network of the municipality of Chiavari. Client: IRETI
- Hydraulic study of the industrial area of the municipality of Brendola (VI). Client: Acque del Chiampo

September 2017 - March 2018: **Librarian at Michelucci library, Alma Mater Studiorum – University of Bologna**, Viale Risorgimento 2 - Bologna (BO), Italy: library management, book lending-restitution activities, cataloguing of books and magazines, Digitocs, management of library informatic resources, organization of spaces and materials

EDUCATION

2018: **State examination and licensed as a professional engineer at Alma Mater Studiorum – University of Bologna (Italy) – section A – civil and environmental sector** – enrolment at the Association of Engineers of Trieste.

September 2015 - March 2018: International Master's Programme – **Second Cycle Degree in Environmental Engineering (Earth Resources Engineering)** at Alma Mater Studiorum – University of Bologna (Italy)

- Master thesis title: Analysis and implementation of high-resolution precipitation data in urban drainage modelling - Supervisor: Prof. Andrea Bolognesi (DICAM) - Final grade: 103/110.

January - July 2017: study period abroad in Aveiro (Portugal) at the Universidade de Aveiro under the **Erasmus programme**.

July 2016: **Erasmus+ mobility program - Riverwalk 2016**: organized by WWF Austria, WWF Trieste, the National Institute for Nature Conservation in Albania (INCA) and the Slovenian Leeway Collective Association (LWC) consisting in a three-week exploration of the wild rivers in Albanian Alps shouldering backpacking and sleeping in camps, with the aim of drawing attention to problems related to the ecosystems of rivers and support local eco-tourism initiatives (<http://www.river-walk.eu/>).

September 2012 - October 2015: **Bachelor's Degree in Environmental Engineering** at Alma Mater Studiorum – University of Bologna (Italy)

- Thesis title: La gestione sostenibile delle acque nel bacino transfrontaliero dell'Isonzo – Supervisor: Prof. Attilio Castellarin (DICAM) - Final grade: 88/110.

2005 - 2011: **High School** at Liceo Scientifico Statale Galileo Galilei, Via G. Mameli 4, 34139, Trieste – Final grade: 80/100.

LANGUAGE SKILLS

Mother tongue: ITALIAN

Languages	Listening	Reading	Writing
ENGLISH	B2	B2	B2
PORTOGUESE	A2	A2	A2

DIGITAL SKILLS

Excellent skills in:

- HEC-HMS software
- QGIS software
- Programming languages: R
- GlobalMapper
- MIKE Urban
- InfoWorks ICM software
- AutoCAD
- Microsoft Office package (Excel, Word and PowerPoint)

Good skills in:

- HEC-RAS software
- SWMM software
- Epanet
- Basement
- Programming languages: SQL

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