PAOLA MAZZOGLIO

Date of birth: 24/02/1991
Nationality: Italian
Gender: Female

mazzoglio.paola@gmail.com

http://www.idrologia.polito.it/web2/persone/team-members/paolamazzoglio/

https://www.researchgate.net/profile/Paola_Mazzoglio

http://it.linkedin.com/in/paolamazzoglio

https://orcid.org/0000-0002-3662-9439

SHORT CV

Current position: Assistant Professor with time contract (RTD-A) at Politecnico di Torino (Italy). Member of the board of YHS (Young Hydrologic Society).

Previous positions: Visiting PhD student at the National Technical University of Athens (Greece). Research and Teaching Assistant at Politecnico di Torino (Italy). Remote Sensing and Hydrological Modelling Specialist at ITHACA (Italy). Data Scientist at WaterView SRL (Italy).

Education: PhD in Civil and Environmental Engineering at Politecnico di Torino with a thesis on geographically-based approaches to the statistical analysis of rainfall extremes. Master's Degree in Civil Engineering – Water Engineering specialization.

Leadership roles: Co-leader of SIREN (Saving Italian hydRological mEasuremeNts) project, a citizen science initiative for the recovery of the historical Italian hydrological measurements. Co-leader of REHYDRATE (REtrieve historical HYDRologic dATa and Estimates), Working group of the IAHS Science for Solutions Scientific Decade 2023-2032 HELPING.

RESEARCH STATEMENT

My research focuses on unravelling the complexities of **rainfall extremes** and their impact on communities, utilizing spatial statistics to model rainfall patterns.

I am deeply passionate about harnessing the power of **data collection and analysis** to enhance our understanding of hydrology. One of my primary areas of interest lies in digitizing historical data, ensuring that valuable information from the past is readily accessible for modern analysis. I am also currently involved in the creation of several national-scale datasets of hydrological variables.

My work extends to the development of **early warning systems**, employing cutting-edge technologies to forecast extreme weather events.

I am committed to translating these scientific findings into actionable insights.

The complete CV follows.

WORK EXPERIENCES

01/04/2023 – now	**Assistant Professor with time contract (RTD-A)** at the Department of Environment, Land and Infrastructure Engineering (DIATI) of Politecnico di Torino, Torino (Italy).
01/11/2022 – 31/03/2023	**Research and teaching assistant** at the Department of Environment, Land and Infrastructure Engineering (DIATI) of Politecnico di Torino, Torino (Italy). Supervisor: Prof. Pierluigi Claps. Topic: prediction and management of extreme hydrological events.
01/06/2022 – 31/08/2022	**External consultant (hydrologist)** for CINID (Consorzio Interuniversitario per l'Idrologia), Italy. Supervisor: Prof. Pierluigi Claps. Topic: Revision of the Civil Protection Plan of the town of Noli based on investigations aimed at managing the risk for pedestrians and vehicles. [Civil Protection Plan]
01/04/2022 – now	**Member of the Young Hydrologic Society (YHS) board (blog committee).** Topic: website and blog management, in charge of the "Hallway Conversation" blog series. https://younghs.com
01/03/2022 - 22/05/2022	**Visiting Ph.D. student** at the National Technical University of Athens, Athens, Greece. Supervisor: Prof. Demetris Koutsoyiannis. Research topic: Development of an ombrian model for rainfall frequency analysis in Sardinia region (Italy) and in Thessaly region (Greece).
01/01/2022 - 31/01/2022	**External consultant (hydrologist)** for LINKS Foundation, Torino (Italy). https://linksfoundation.com
01/11/2019 – 07/12/2022	**Ph.D. student in Civil and Environmental Engineering and teaching assistant** at the Department of Environment, Land and Infrastructure Engineering, Politecnico di Torino, Torino (Italy). Supervisors: Prof. Pierluigi Claps, Prof. Ilaria Butera. Research topic: Geographically-based approaches to the statistical analysis of rainfall extremes.
23/10/2019 - 31/12/2021	**External consultant (hydrologist)** for ITHACA (Information Technology for Humanitarian Assistance, Cooperation and Action), Torino (Italy). www.ithacaweb.org
19/06/2017 - 22/10/2019	**GIS, remote sensing and hydrological modelling specialist** at ITHACA (Information Technology for Humanitarian Assistance, Cooperation and Action), 10138 Torino (Italy). www.ithacaweb.org
17/10/2016 - 16/06/2017	**Junior research fellow** at the Department of Environment, Land and Infrastructure Engineering of Politecnico di Torino. Tutor: Prof. Francesco Laio. Research topic: Analysis of the interaction between artificial light sources and rain fields for the development of an estimation precipitation method from photographic images.
05/09/2016 - 18/06/2018	**Data scientist** at WaterView SRL, Torino (Italy). Topics: execution of experiments with different cameras in every light and weather condition, to provide raw material for the improvement of WeatherCAM algorithms; develop and test of WeatherCAM algorithms. waterview.it

TEACHING EXPERIENCES

A.Y. 2023/2024	Teaching assistant of "Protezione idraulica del territorio / Flood risk management" MSc course in "Environmental and Land Engineering" (20 hours).
27/04/2023	EGU23 Short Course "DataViz: Visualise your data effectively and avoid common pitfalls". Convener: Swamini Khurana. Co-conveners: Edoardo Martini, Paola Mazzoglio, Epari Ritesh Patro, Roshanak Tootoonchi. [Program]
A.Y. 2022/2023	Teaching assistant and tutor of the "Protezione civile" (Civil Protection) MSc course in "Environmental and Land Engineering" and in "Territorial, Urban, Environmental and Landscape Planning" of Politecnico di Torino (21 + 20 hours). Teaching evaluation provided by the students: 3.766/4, with a satisfaction rate of 100%.
A.Y. 2022/2023	Teaching assistant of the "Protezione idraulica del territorio" (Flood risk management) MSc course in "Environmental and Land Engineering" (20 hours). Teaching evaluation provided by the students: 3.702/4, with a satisfaction rate of 100%.
A.Y. 2022/2023	Teaching assistant of the "Meccanica dei fluidi" (Fluid mechanics) BSc course in "Mechanical Engineering" of Politecnico di Torino (15 hours). Teaching evaluation provided by the students: 3.52/4, with a satisfaction rate of 92%.
A.Y. 2021/2022	Teaching assistant of the "Meccanica dei fluidi" (Fluid mechanics) BSc course in "Mechanical Engineering" of Politecnico di Torino (12 hours). Teaching evaluation provided by the students: 3.665/4, with a satisfaction rate of 93.52%.

A.Y. 2020/2021	Tutor of the "Protezione civile" (Civil Protection) MSc course in "Environmental and Land Engineering" and in "Territorial, Urban, Environmental and Landscape Planning" of Politecnico di Torino (20 hours).
A.Y. 2020/2021	Tutor of the "Idrologia" (Hydrology) MSc course in "Civil Engineering" of Politecnico di Torino (20 hours).
A.Y. 2019/2020	Tutor of the "Protezione Civile" (Civil Protection) MSc course in "Environmental and Land Engineering" and in "Territorial, Urban, Environmental and Landscape Planning" of Politecnico di Torino (20 hours).

RESEARCH PROJECTS

11/2023 – now	**REHYDRATE (REtrieve historical HYDRologic dATa and Estimates).** Working group of the IAHS Science for Solutions Scientific Decade 2023-2032 HELPING (Hydrology Engaging Local People IN one Global world). Role: co-leader (with Miriam Bertola).
02/2023 – now	**SIREN (Saving Italian hydRological mEasuremeNts).** Self-funded research project. Topic: citizen science initiative developed to digitize historical hydro-meteorological records from printed Italian Hydrological Yearbooks. Roles: project co-leader (with Miriam Bertola), researcher. https://www.zooniverse.org/projects/siren-project/siren-project
12/2022 – now	**RETURN (Multi-Risk sciEnce for resilienT commUnities undeR a changiNg climate).** PNRR project (national). Topic: analysis and mapping of natural and climatic risks on infrastructure systems. Roles: researcher involved in Spoke TS2 (Multi risk resilience of critical infrastructures) and in Spoke VS1 (Water), in charge of exchange of information between Spoke TS2 WP3 and Spoke VS1, Task Leader of Spoke TS2 WP3 Task 3.2. https://www.fondazionereturn.it
12/2022 – 06/2023	**Multi-risk analysis on urban and extra-urban territories with BIM-GIS-IoT tools for the definition of a maintenance and forecasting Digital Twin.** Research contract between Politecnico di Torino and Arisk Srl. Topic: development of a methodology of the quantification of the flooding hazard. Role: researcher.
07/2022 – now	**Evaluation of the hydrological components needed for the definition of the flood risk in the "Autorità di Bacino Distrettuale dell'Appennino Meridionale".** Cooperation agreement between Consorzio Interuniversitario di Idrologia (CINID) and Politecnico di Torino. Topic: data collection and rainfall regional frequency analysis over the Southern Apennines. Role: researcher.
03/2022 – 02/2023	**HiDALGO2.** HORIZON-EUROHPC-JU-2021-COE-01 (Centres of Excellence for HPC applications). Role: preparation of a proposal for the call, where I was also involved as researcher. Project funded at the end of 2022. Unfortunately, all the Italian partners had to leave the consortium for problems linked to co-funding.
11/2021 – 09/2022	**Hydrological/hydraulic study and review of the civil protection plan of the town of Noli (SV).** [Civil Protection Plan]
05/2021 – 08/2021	**Support for the hydrological analysis necessary for the design of infrastructures for the mitigation of the hydraulic risk in Bitti (Sardegna).**
01/2021 – 12/2023	**Caratterizzazione del regime di frequenza degli estremi idrologici nel Distretto Po, anche considerando scenari di cambiamento climatico.** Collaboration between Autorità di Bacino Distrettuale del Fiume Po and the Universities of the Po river basin (Prot. N. 8536/2020 of the 05/11/2020). Topic: data collection and rainfall regional frequency analysis over the Po river basin. Role: researcher.
11/2019 – 11/2020	**RESBA (REsistenza degli SBArramenti).** Interreg project. Topic: support in the development of a WebGIS. Role: researcher. https://www.resba.it/
02/2019 - 10/2019	**LEXIS (Large-scale EXecution for Industry & Society).** H2020 project. Topic: development of an advanced engineering platform at the confluence of HPC, Cloud and Big Data, which leverages existing, geographically distributed large-scale resources in a federation of established EU supercomputing centres. Role: researcher within the Weather and Climate Pilot of LEXIS (Large-scale EXecution for Industry & Society), in charge of the inclusion of WRF data produced by CIMA Research Foundation into ITHACA Extreme Rainfall Detection System (erds.ithacaweb.org), the evaluation of rainfall thresholds calibrated on WRF data, dissemination activities at conferences and through publications. https://lexis-project.eu/web

11/2018 - 12/2018	**Project "Global Land High Resolution Hot Spot Monitoring" within the "Global Land Component" of the Copernicus Land Service (C-GL-HRM) – Lot 1**. Role: land cover and land cover change analysis and validation. https://land.copernicus.eu
09/2018 - 10/2018	**Collaboration for a consultancy to the European Environment Agency in implementing the In-Situ component of the Copernicus programme.** Role: consultancy on the mapping component of the Copernicus Emergency Management Service. https://insitu.copernicus.eu
08/2018 - 09/2018	**Drought.** Role: researcher involved in the analysis of available rainfall measurement for the upgrade of a drought monitoring early warning system. drought.ithacaweb.org
04/2018 - 10/2019	**Copernicus Emergency Management Service.** Topic: on-demand and fast provision (within hours or days) of geospatial information derived from satellite remote sensing and completed by available in situ or open data sources in support of the emergency management activities immediately following an emergency event. Role: management and elaboration of geospatial information. https://emergency.copernicus.eu/mapping/ems/rapid-mapping-portfolio
06/2017 - 10/2019	**ERDS (Extreme Rainfall Detection System).** Role: researcher involved in the development of an early warning system based on both near real-time and forecast rainfall measurements; project manager from 01/2018 up to 10/2029. erds.ithacaweb.org
06/2017 - 12/2018	**TRIBUTE (TRigger BUffer zones for inundaTion Events).** Prevention Project for EU Civil Protection, DG-ECHO funded project (ECHO/SUB/2016/742480/PREV08). Role: researcher involved in the improvement of a satellite-based extreme rainfall detection system, in the analysis and elaboration of precipitation data and in dissemination activities at conferences and through publications.

EDUCATION

01/11/2019 – 07/12/2022	**Ph.D. Student in Civil and Environmental Engineering** at the Department of Environment, Land and Infrastructure Engineering, Politecnico di Torino (Italy). Final grades: Degree cum laude.
13/02/2017	**Qualification exam for the profession of engineer (section A)** at Politecnico di Torino, Torino (Italy).
20/03/2014 - 27/07/2016	**Master's Degree in Civil Engineering – Water Engineering specialization** at Politecnico di Torino, Torino (Italy).
10/2010 - 14/03/2014	**Bachelor's Degree in Civil Engineering** at Politecnico di Torino, Torino (Italy).
09/2005 - 06/2010	**High school diploma** at Istituto Tecnico per Geometri "Pier Luigi Nervi", Alessandria (Italy).

MAIN COURSES AND WORKSHOPS

PhD Courses

- *Public speaking.* Politecnico di Torino (5 hours, 26/10/2022).
- *Bayesian inference: examples in civil and environmental engineering*. Prof. Alberto Viglione, Politecnico di Torino (10 hours, 06/2022).
- *Statistical methods with application to climate variability and change assessments*. Prof. Ramesh Teegavarapu, Politecnico di Torino (20 hours, 06/2022).
- *Thinking out of the box.* Politecnico di Torino (1 hour, 07/05/2022).
- *EGU Effective Popular Writing and Media Skills for Early Career Researchers*. SciConnect & EGU (16 hours, 28/02-16/03/2022).
- *Personal branding*. Politecnico di Torino (1 hour, 23/12/2021).
- *Geostatistica per variabili ambientali*. Prof. Butera I., Politecnico di Torino (10 hours, 09-10/2021).
- *Navigating the hiring process: CV, tests, interview*. Politecnico di Torino (2 hours, 25/04/2021).
- *Advanced geospatial data management*. Prof. Ajmar A. and Prof. Giulio Tonolo F., Politecnico di Torino (15 hours, 05-26/03/2021).
- *OGC API with QGIS integration*. EO Browser (1 hour, 29/10/2020).
- *An e-infrastructure for Earth System Modelling*. CMCC webinar (1 hour, 28/10/2020).
- *Publishing research: from thesis to peer-reviewed publications*. Prof. Teegavarapu R., Politecnico di Torino (2 hours, 25/09/2020).
- *Research data management and open access publishing*. Politecnico di Torino (15 hours, 05-06/2020).
- *Scientific writing skills*. Iversity (36 hours, 05/2020).

- *Effective visual communication of science*. Politecnico di Torino (4 hours, 22/05/2020).
- *Data manipulation and visualisation - Interactive analysis of ECMWF data*. ECMWF webinar (1 hour, 14/05/2020).
- *Hydrological modelling using bucket-type models (HBV / GR4J)*. Webinar organized by Prof. Seibert J., University of Zurich (8 hours, 03/05/2020).
- *Programmazione scientifica avanzata in Matlab*. Prof. Bardella P. and Prof. Scialò S., Politecnico di Torino (28 hours, 02-05/2020).
- *GEOframe Winter School*. Università di Trento (64 hours, 8-17/01/2020).
- *Research integrity*. Politecnico di Torino (5 hours, 23/12/2019).
- *Urban flood modeling in a changing climate.* CMCC webinar (1 hour, 19/12/2019).
- *Time management*. Politecnico di Torino (2 hours, 17/12/2019).
- *Corso GNU/Linux base*. Politecnico di Torino (12 hours, 22/10/2019 - 10/12/2019).

Post Master's Degree Courses

- *River basin delineation based on NASA Digital Elevation Data*. NASA ARSET webinar (26/11/2019).
- *Introduction to Geostatistics*. Prof. Butera I., Politecnico di Torino (7 hours, 26/09/2019).
- *Estendere QGIS con Python*. GFOSS, Torino (08/06/2019).
- *Data Visualization*. Dataninja School (04/2019 - 05/2019).
- *Intermediate webinar: remote sensing for disasters scenarios*. NASA ARSET webinar (04-23-30/04/2019).
- *Corso di formazione alla salute e sicurezza per i lavoratori*. CSAO (8 hours, 02/2019).
- *Deep Learning Onramp*. MathWorks Training (21/02/2019).
- *MATLAB Onramp*. MathWorks Training (27/01/2019).
- *Python*. Consulman, Torino (40 hours, 11/2018-12/2018).
- *Cartography*. MOOC ESRI (6 weeks, 10/2018 - 11/2018).
- *Formazione project management: come gestire al meglio i progetti*. Centro estero per l'internazionalizzazione, Torino (27 hours, 09/2018 - 11/2018).
- *The 5-minute speech. Developing a clear, concise & convincing communication style*. Centro estero per l'internazionalizzazione, Torino (16 hours, 29-30/10/2018).
- *Monitoring urban floods using Remote Sensing*. NASA ARSET webinar (25/07/2018 and 01/08/2018).
- *Introduzione a QGIS - Introduction to QGIS*. MOOC Università degli Studi di Modena e Reggio Emilia (8 hours, 07/2018).
- *Advanced webinar: techniques for wildfire detection and monitoring*. NASA ARSET webinar, 12/07/2018 and 19/07/2018.
- *Monitoring tropical storms for emergency preparedness*. NASA ARSET webinar (03-10/05/2018).
- *Using NASA Earth observing data for monitoring and response to vector-borne and water-borne diseases*. NASA webinar (08/05/2018).
- *Intro to Python for Data Science Course*. Datacamp (02/2018).
- *Tecniche di promozione aziendale in lingua inglese: SOS presentation (Avoing disaster and being memorable)*. Centro estero per l'internazionalizzazione, Torino (36 hours, 09/2017 - 10/2017).
- *Introduction to Synthetic Aperture Radar*. NASA ARSET webinar (28/06/2017 and 06/07/2017).
- *Status of Global Precipitation Measurement (GPM) Mission data products and applications*. NASA webinar (03/05/2017).

FELLOWSHIP AND AWARDS

Fellowship

- Research grant, Politecnico di Torino (Italy), November 2022 – March 2023.
- Ph.D. fellowship, Politecnico di Torino (Italy), November 2019 – October 2022.
- Post-graduate research grant, Politecnico di Torino (Italy), October 2016 – June 2017.

Awards

- Awarded of the travel grant to participate to the 2023 SISC Conference "SISC2023: Mission Adaptation! Managing the risk and building resilience" held in Milano (Italy), 22-24 November 2023.
- First place (30/30) tied with Luca Salerno and Zahra Shams Esfandabadi for the "Ph.D. degree awards in memory of Eng. Stefano Rigatelli", call for application dedicated to Ph.D. graduates in Environmental Engineering or Civil and Environmental Engineering at Politecnico di Torino in the calendar year 2022. Award given to Luca Salerno for his younger age.
- Awarded of the Roland Schlich Travel Support for in-person participants at EGU 2023.

- Awarded in 2009 by the Piedmont Region for being one of the best 500 students in the last two years of high school.

PUBLICATIONS

Articles in ISI journals

1. Evangelista G., Ganora D., **Mazzoglio P.**, Pianigiani F., Claps P. (**2023**). Flood attenuation potential of Italian Dams: sensitivity on geomorphic and climatological factors. *Water Resources Management*. https://doi.org/10.1007/s11269-023-03649-z. [Article]

2. **Mazzoglio P.**, Butera I., Claps P. (**2023**). A local regression approach to analyze the orographic effect on the spatial variability of sub-daily rainfall annual maxima. *Geomatics, Natural Hazards and Risk*, 14(1), 2205000, https://doi.org/10.1080/19475705.2023.2205000. [Article]

3. **Mazzoglio P.**, Butera I., Alvioli M., Claps P. (**2022**). The role of morphology in the spatial distribution of short-duration rainfall extremes in Italy. *Hydrology and Earth System Sciences*, 26, 1659–1672, https://doi.org/10.5194/hess-26-1659-2022. [Article]

4. **Mazzoglio P.**, Parodi A., Parodi A. (**2022**). Detecting extreme rainfall events using the WRF-ERDS workflow: the 15 July 2020 Palermo case study. *Water*, 14(1), 86, https://doi.org/10.3390/w14010086. [Article] – [Selected as Cover Story of Water 14(1)]

5. **Mazzoglio P.**, Macchia S., Gallo E., Winter J., Claps P. (**2021**). Disaster tales as communication tool for increasing risk resilience. *International Journal of Disaster Risk Science*, 12, 341-354, https://doi.org/10.1007/s13753-021-00341-x. [Article]

6. **Mazzoglio P.**, Butera I., Claps P. (**2020**). I^2-RED: a massive update and quality control of the Italian annual extreme rainfall dataset. *Water*, 12, 3308, https://doi.org/10.3390/w12123308. [Article]

7. **Mazzoglio P.**, Laio F., Balbo S., Boccardo P., Disabato F. (**2019**). Improving an Extreme Rainfall Detection System with GPM IMERG data. *Remote Sensing*, 11(6), 677, https://doi.org/10.3390/rs11060677. [Article]

Articles in other journals

1. **Mazzoglio P.** (**2023**). Verso una migliore comprensione della variabilità spaziale degli estremi pluviometrici in Italia (Toward a better understanding of the spatial variability of rainfall extremes in Italy). *L'Acqua*, 3/2023, 99-103.

2. **Mazzoglio P.**, Ganora D., Claps P. (**2022**). Gli eventi estremi di durata sub-giornaliera stanno aumentando in Italia? *Nova Ex Coelo*, 47. [Article]

3. **Mazzoglio P.**, Parodi A. (**2021**). Identificazione di eventi estremi di pioggia da dati previsionali. *Nova Ex Coelo*, 35. [Article] – [Journal]

4. **Mazzoglio P.**, Laio F., Balbo S., Boccardo P. (**2019**). ERDS: an Extreme Rainfall Detection System based on both near real-time and forecast rainfall measurements. *Annual of the University of Architecture, Civil Engineering and Geodesy (Sofia)*, 52(S1), 1423-1433. [Article]

Book Chapters

1. Claps P., Ganora D., **Mazzoglio P.** (**2022**). Rainfall regionalization techniques. In: Morbidelli R. (Ed.), Rainfall. Elsevier, 327-350, https://doi.org/10.1016/B978-0-12-822544-8.00013-5. [Chapter]

2. **Mazzoglio P.**, Danovaro E., Ganne L., Parodi A., Hachinger S., Galizia A., Parodi A., Martinovič J. (**2022**). Exploitation of multiple model layers within LEXIS Weather and Climate Pilot: an HPC-based approach. In: Terzo O., Martinovič J. (Eds.), HPC, big data, and AI convergence towards exascale. CRC Press, 147-164, https://doi.org/10.1201/9781003176664-8. [Chapter]

3. **Mazzoglio P.** (**2022**). Insights on a global Extreme Rainfall Detection System. In: Michaelides S. (Ed.), Precipitation Science. Elsevier, 135-155, https://doi.org/10.1201/9781003176664-8. [Chapter]

4. **Mazzoglio P.**, Ajmar A., Schumann G.J.P., Balbo S., Boccardo P., Perez F., Borgogno-Mondino E. (**2021**). Satellite-based approaches in the detection and monitoring of selected hydrometeorological disasters. In: Nhamo G., Chapungu L. (Eds.), The Increasing Risk of Floods and Tornadoes in Southern Africa. Sustainable Development Goals Series. Springer, 19-37, https://doi.org/10.1007/978-3-030-74192-1_2. [Chapter]

5. **Mazzoglio P.**, Domeneghetti A., Ceola S. (**2021**). Flood detection and monitoring with EO data tools and systems. In: Schumann G.J.P. (Ed.), Earth Observation for Flood Applications. Elsevier, 195-215, https://doi.org/10.1007/978-3-030-74192-1_2. [Chapter]

Conference Proceedings

1. **Mazzoglio P.**, Ganora D., Claps P. (**2022**). Long-term spatial and temporal rainfall trends over Italy. *Environmental Sciences Proceedings*, 21, 28, https://doi.org/10.3390/environsciproc2022021028. [Proceeding]

2. **Mazzoglio P.**, Volpini G., Deidda R., Claps P. (**2022**). Stima multi-modello della severità di un evento alluvionale: il caso di Bitti, novembre 2020. In: Arena F., Fiorentino M., Malara G. *Proceedings of the XXXVIII Convegno Nazionale di Idraulica e Costruzioni Idrauliche*, Reggio Calabria (Italy), 4-7 September 2022. [Proceeding]

3. Monforte I., Evangelista G., Ganora D., **Mazzoglio P.**, Claps P. (**2022**). Nuovi open-data per nuove stime idrologiche alla scala di distretto. Il caso del Po. In: Arena F., Fiorentino M., Malara G. *Proceedings of the XXXVIII Convegno Nazionale di Idraulica e Costruzioni Idrauliche*, Reggio Calabria (Italy), 4-7 September 2022. [Proceeding]

4. Evangelista G., **Mazzoglio P.**, Pianigiani F., Claps P. (**2022**). Towards the assessment of the flood attenuation potential of Italian dams: first steps and sensitivity to basic model features. *Proceedings of the 39th IAHR World Congress*, Granada (Spain), 19-24 June 2022, https://doi.org/10.3390/environsciproc2022021028. [Proceeding]

5. **Mazzoglio P.**, Ajmar A., Parodi A., Bovio L., Parodi A., Pasquali P., Martinovic J. (**2022**). The WRF-ERDS workflow in the November 2020 Calabria flood event. In: Borgogno-Mondino E., Zamperlin P. (Eds.). *Geomatics and Geospatial Technologies. ASITA 2021*. Communications in Computer and Information Science, Springer, vol 1507, https://doi.org/10.1007/978-3-030-94426-1_8. [Proceeding] – [Conference recording in Italian]

6. **Mazzoglio P.** (**2021**). ERDS: un sistema per l'identificazione di eventi estremi da dati satellitari e previsionali. In: Arena F., Lanzoni S., Malara G. (eds). *Proceedings of the XXXVII Convegno Nazionale di Idraulica e Costruzioni Idrauliche*, online, 14-16 June 2021. [Proceeding]

7. Parodi A., Danovaro E., Hawkes J., Quintino T., Lagasio M., Delogu F., D'Andrea M., Parodi A., Sardo B.G., Ajmar A., **Mazzoglio P.**, Brocheton F., Ganne L., García-Hernández R.J., Hachinger S., Hayek M., Terzo O., Krenek J., Martinovic J. (**2021**). LEXIS Weather and Climate large-scale pilot. In: Barolli L., Poniszewska-Maranda A., Enokido T. (Eds). *Complex, Intelligent and Software Intensive Systems. CISIS 2020*. Advances in Intelligent Systems and Computing, Springer, vol 1194, https://doi.org/10.1007/978-3-030-94426-1_8. [Proceeding]

8. **Mazzoglio P.**, Laio F., Sandu C., Boccardo P. (**2019**). Assessment of an Extreme Rainfall Detection System for flood prediction over Queensland (Australia). *Proceedings*, 18(1), 1, https://doi.org/10.3390/ECRS-3-06187. [Proceeding] - [Presentation]

Conference Abstracts

1. Claps P., Evangelista G., Ganora D., **Mazzoglio P.**, Monforte I. (**2023**). FOCA (Italian FlOod and Catchment Atlas): l'atlante italiano delle piene e dei descrittori dei bacini idrografici. Giornate dell'Idrologia della Società Idrologica Italiana 2023, Matera (Italy), 13-15 September 2023. [Abstract]

2. Cafiero L., **Mazzoglio P.**, Viglione A., Laio F. (**2023**). Non-stationary flood frequency analysis: case study in the Po river basin. Giornate dell'Idrologia della Società Idrologica Italiana 2023, Matera (Italy), 13-15 September 2023. [Abstract]

3. **Mazzoglio P.**, Butera I., Claps P. (**2023**). Integrazione di una mappatura ad alta risoluzione dei gradienti orografici nella stima della precipitazione di progetto. Giornate dell'Idrologia della Società Idrologica Italiana 2023, Matera (Italy), 13-15 September 2023. [Abstract]

4. **Mazzoglio P.**, Bertola M., Lombardo L., Viglione A., Laio F., Claps P. (**2023**). Recovering the Italian daily hydrological measurements with a citizen science approach. 28th IUGG General Assembly, Berlin (Germany), 11-20 July 2023, IUGG23-3414, https://doi.org/10.57757/IUGG23-3414. [Abstract]

5. Evangelista G., Ganora D., **Mazzoglio P.**, Pianigiani F., Claps P. (**2023**). Sensitivity of Italian dams' flood mitigation capacity to the combined effect of morphological and climatological factors. 28th IUGG General Assembly, Berlin (Germany), 11-20 July 2023, IUGG23-4468, https://doi.org/10.57757/IUGG23-4468. [Abstract]

6. Cafiero L., Monforte I., **Mazzoglio P.**, Ganora D., Laio F., Claps P., Viglione A. (**2023**). Bayesian Spatially Smooth Regional Estimation of flood quantiles: Case study in Northern Italy. 28th IUGG General Assembly, Berlin (Germany), 11-20 July 2023, IUGG23-3467, https://doi.org/10.57757/IUGG23-3467. [Abstract]

7. **Mazzoglio P.**, Butera I., Claps P. (**2023**). Investigating orographic gradients and rainfall extremes through local regression models: an application over Italy. 28th IUGG General Assembly, Berlin (Germany), 11-20 July 2023, H12p-097, https://doi.org/10.57757/IUGG23-2937. [Abstract] - [Poster]

8. **Mazzoglio P.**, Butera I., Claps P. (**2023**). Approaching the estimation of high return period rainfall quantiles through a high-resolution investigation of local orographic gradients. II Workshop CNR IRPI "La mitigazione dei rischi geo-idrologici in un contesto di cambiamento globale: quali risposte dalla comunità scientifica", Rome (Italy), 3-5 July 2023.

9. **Mazzoglio P.**, Macchia S., Gallo E., Winter J., Claps P. (**2023**). Moving from disaster reports to disaster tales to increase flood risk awareness. EGU General Assembly 2023, Vienna (Austria), 23-28 April 2023, EGU23-11949, https://doi.org/10.5194/egusphere-egu23-11949. [Abstract]

10. Cafiero L., **Mazzoglio P.**, Monforte I., Claps P., Viglione A., Laio F. (**2023**). Non-stationary flood frequency analysis: case study in the Po river basin. EGU General Assembly 2023, Vienna (Austria), 23-28 April 2023, EGU23-5694, https://doi.org/10.5194/egusphere-egu23-5694. [Abstract]

11. **Mazzoglio P.**, Butera I., Claps P. (**2023**). Effects of Super-Extremes in the evaluation of the design rainfall: a case study in Northern Italy. EGU General Assembly 2023, Vienna (Austria), 23-28 April 2023, EGU23-668, https://doi.org/10.5194/egusphere-egu23-668. [Abstract]

12. **Mazzoglio P.**, Butera I., Claps P. (**2022**). A regionless local regression approach for the reconstruction of the spatial variability of rainfall extremes in a complex terrain. AGU Fall Meeting 2022, Chicago & Online, 12-16 December 2022, H35B-04. [Abstract]

13. **Mazzoglio P.**, Butera I., Claps P. (**2022**). Analisi dell'effetto orografico sugli estremi di precipitazione sub-giornalieri. Le Giornate dell'Idrologia della Società Idrologica Italiana 2022, Genova (Italy), 9-11 November 2022. [Abstract]

14. Claps P., Evangelista G., **Mazzoglio P.** (**2022**). Nubifragi "anomali" da Bitti (2020) a Cantiano (2022) e spunti per un ripensamento delle fasi di previsione e prevenzione. Le Giornate dell'Idrologia della Società Idrologica Italiana 2022, Genova (Italy), 9-11 November 2022. [Abstract]

15. Evangelista G., **Mazzoglio P.**, Pianigiani F., Claps P. (**2022**). Primi passi verso la valutazione del potenziale di laminazione delle grandi dighe italiane. Le Giornate dell'Idrologia della Società Idrologica Italiana 2022, Genova (Italy), 9-11 November 2022. [Abstract]

16. Cafiero L., **Mazzoglio P.**, Claps P., Viglione A. (**2022**). Toward non-stationary flood frequency analysis: case study in the Po river basin. Le Giornate dell'Idrologia della Società Idrologica Italiana 2022, Genova (Italy), 9-11 November 2022. [Abstract]

17. **Mazzoglio P.**, Claps P., Iliopoulou T., Dimitriadis P., Malamos N., Butera I., Koutsoyiannis D. (**2022**). Estimation of the design rainfall in ungauged sites using novel regionalization approaches: an application over Thessaly region, Greece. STAHY2022 - 12th International Workshop on Statistical Hydrology, Chia (Italy), 17-20 September 2022. [Abstract] - [Poster]

18. **Mazzoglio P.**, Butera I., Claps P. (**2022**). Geostatistical analysis of extreme precipitation records over North-West Italy. geoENV2022, Parma (Italy), 22-24 June 2022.

19. **Mazzoglio P.**, Butera I., Claps P. (**2022**). Increasing rainfall data density in Northern Italy through daily extremes and the Hershfield factor. IAHS-AISH Scientific Assembly 2022, Montpellier (France), 29 May–3 June 2022, IAHS2022-335, https://doi.org/10.5194/iahs2022-335. [Abstract]

20. **Mazzoglio P.**, Butera I., Alvioli M., Claps P. (**2022**). Influence of morphology on the spatial variability of rainstorms over Italy. EGU General Assembly 2022, Vienna (Austria), 23-27 May 2022, EGU22-6342, https://doi.org/10.5194/egusphere-egu22-6342. [Abstract] – Selected as Highlight

21. Claps P., Brunetto M., Evangelista E., **Mazzoglio P.**, Monforte I. (**2022**). FaBI: A new collection of flood data and attributes of basins in Italy. EGU General Assembly 2022, Vienna (Austria), 23-27 May 2022, EGU22-5563, https://doi.org/10.5194/egusphere-egu22-5563. [Abstract]

22. **Mazzoglio P.**, Butera I., Alvioli M., Claps P. (**2022**). Il ruolo della morfologia sulla distribuzione spaziale degli estremi di pioggia sub-giornalieri italiani. 4° Congresso Nazionale AISAM, Milano, 15-18 February 2022. [Abstract]

23. **Mazzoglio P.**, Butera I., Claps P. (**2021**). Orographic influence on the spatial variability of rainfall extremes in Italy. AGU Fall Meeting 2021, New Orleans & Online, 13-17 December 2021, H45ZA-10. [Abstract] - [Poster]

24. **Mazzoglio P.**, Pasquali P., Parodi A., Parodi A. (**2021**). Improving weather forecasts by means of HPC solutions: the LEXIS approach in the 2020 Bitti flood event. EMS Annual Meeting 2021, online, 6–10 September 2021, EMS2021-125, https://doi.org/10.5194/ems2021-125. [Abstract]

25. **Mazzoglio P.**, Butera I., Claps P. (**2021**). How landscape and climate affect the spatial variability of the Italian rainfall extremes? Some initial clues based on I^2-RED. EGU General Assembly 2021, online, 19–30 April 2021, EGU21-7159, https://doi.org/10.5194/egusphere-egu21-7159. [Abstract] – [Poster]

26. **Mazzoglio P.**, Parodi A., Parodi A., Bovio L., Martinovic J. (**2021**). Heavy rainfall identification within the framework of the LEXIS Project: the Italian case study. 101st American Meteorological Society Annual Meeting. [Abstract] - [Poster]

27. **Mazzoglio P.**, Balbo S., Laio F., Boccardo P., Pasquali P. (**2020**). ERDS: un sistema open source per il monitoraggio di eventi di pioggia intensa. FOSS4G Italia 2020, Torino (Italy). [Abstract]

28. **Mazzoglio P.**, Laio F., Balbo S., Boccardo P. (**2019**). ERDS: an Extreme Rainfall Detection System based on both near real-time and forecast rainfall measurements. Eighth Bulgarian-Austrian Seminar "Hydrological hazards and related problems", 30-31 May 2019, Sofia. [Abstract] (page 12) - [Presentation]

29. **Mazzoglio P.**, Boccardo P., Laio F., Balbo S., Disabato F. (**2018**). ERDS: a satellite-based approach in the extreme rainfall detection field. AIT 2018 - IX Conference of the Italian Society of Remote Sensing, 4-6 July 2018, Firenze (Italy). [Abstract] (page 137)

30. **Mazzoglio P.**, Laio F., Disabato F., Angeluccetti I. (**2018**). GPM precipitation data as input for a real time extreme rainfall detection system. EGU General Assembly 2018. [Abstract]

31. Angeluccetti I., Disabato F., Perez F., Balbo S., **Mazzoglio P.**, Keramitsoglou I., Kiranoudis C.T. (**2018**). TRIBUTE 'TRIgger BUffers for inundaTion Events': the importance of flood hazard and vulnerability assessment. EGU General Assembly 2018. [Abstract]

Project reports - Technical reports

1. Castellarin A., Claps P., Magnini A., **Mazzoglio P.**, Viglione A. (**2023**). Rapporto sulle attività del WP1 (Sviluppo e sperimentazione di tecniche di stima del regime degli estremi di precipitazione a scala puntuale). Report related to a consultancy for the Autorità di Bacino Distrettuale del Fiume Po.

2. Lavalle L., Villani M.L., Patriarca T., Bazzurro N., Serale G., Cova P., Converso R., Delsoldato G., Piramide V., Ghillani A., Adorni M., DeGiovanni M., Fiorini M., Freni G., Torregrossa M., Giovannini G., Mauro A., Agostini I., Ceresara M., Carpanese P., Saler E., Donà M., Badin L., Follador V., daPorto F., Claps P., **Mazzoglio P.**, Evangelista G., Cammarata G., Zani G., Lombardi M., Berardi D., Ridolfi E., DeGirolamo P., Codato C., Toth E., Bragalli C. (**2023**). Inventory, Description and Classification of Interdependent Infrastructures and their Critical Assets. RETURN PNRR project Deliverable D6.2.1.

3. CIMA et al. (**2022**). Impact on productivity and business process improvement for Weather & Climate. LEXIS H2020 Project Deliverable D9.9. [Report]

4. **Mazzoglio P.**, Bovio L., Parodi A., Lagasio M., Milelli M., Mazzarella V., Brocheton F. (**2022**). Final report (KPI included) on demonstration and validation of the weather & climate test-bed applied to selected cases. LEXIS H2020 Project Deliverable D7.9. [Report]

5. Brocheton F., Danovaro E., **Mazzoglio P.**, Pasquali P., Parodi A., Parodi A., D'Andrea M., Ferretti M., Ferretti F., Ganne L., Scionti A., Hayek M., Golasowski M. (**2021**). Final deployment of test-bed infrastructure components with full interoperable model layers. LEXIS H2020 Project Deliverable D7.8. [Report]

6. Parodi A., Ganne L., Parodi A., **Mazzoglio P.**, Brocheton F. (**2020**). Deployment of test-bed infrastructure components and adoption of Weather and Climate Data Interchange for model layer interoperability. LEXIS H2020 Project Deliverable D7.6. [Report]

7. Brocheton F., Manubens N., Hawkes J., **Mazzoglio P.**, Ajmar A., Parodi A., Vaccaro N., Rocco F., Peveri R. (**2019**). Deployment of the First Test-bed Infrastructure Components in HPC/Cloud. LEXIS H2020 Project Deliverable D7.4. [Report]

8. Balbo S., **Mazzoglio P**. (**2018**). Report on satellite-derived parameters related to the estimation of extreme rainfall detection. TRIBUTE Deliverable DC2.

Thesis

1. **Mazzoglio P.** (**2022**). Geographically-based approaches to the statistical analysis of rainfall extremes. PhD thesis at Politecnico di Torino. Supervisors: Prof. Pierluigi Claps, Prof. Ilaria Butera. [Thesis]

    The contributions of the thesis have been highlighted on the website of the Conference "Climate change: il fronte dell'acqua" organized in Bologna the 12th October 2023. [Website]

2. **Mazzoglio P.** (**2016**). Laboratory experiment supporting an estimating precipitation method from photographic images. Master's Degree thesis at Politecnico di Torino. Supervisors: Prof. Francesco Laio, Eng. Paolo Cavagnero.

OTHER PRESENTATIONS AT CONFERENCES, SEMINARS AND MEETINGS

Presentations

1. Asaridis P., Avino A., Dallan E., Lompi M., **Mazzoglio P.**, Raimondi A., Rotaru A.M., Sambito M., Treppiedi D. (**2023**). Criteria for the design and management of detention basins: review of traditional methods & current challenges. 1° Lunch Webinar organized by Junior Researchers of the Spoke VS1 of the RETURN project, 29 November 2023, online.

2. Claps P., Ganora D., **Mazzoglio P.** (**2023**). Grandi nubifragi in un contesto di cambiamento climatico. Poster presented at the meeting "Le Azioni del Politecnico e del Territorio per la Crisi Climatica" organized by the Green Team of the Politecnico di Torino, 13 October 2023, Torino, Italy.

3. **Mazzoglio P.**, Ganora D., Viglione A., Claps P. (**2023**). Data-driven analysis of hydrological extremes. In "9th SmartData@PoliTO Workshop – SmartData@PoliTO meets AI-H@PoliTO", organized by SmartData@PoliTO, 25-26 September 2023, Loano, Italy.

4. Claps P., Evangelista G., **Mazzoglio P.** (**2023**). Caratteristiche statistiche e idrologiche di recenti eventi alluvionali significativi: possibili risposte della Missione 4.2 del PNRR. In: "Eventi estremi nell'ambito dei cambiamenti climatici – Le conseguenze idrologiche ed idrauliche", organized by Ordine degli Ingegneri di Bergamo, 21st September 2023, Bergamo, Italy.

5. **Mazzoglio P.**, Claps P. (**2023**). Spatial influence of record-breaking rainfall events. In: International Workshop "Novel concepts for the mitigation of flood and drought risk - Science progress and engineering practice", 11 September 2023, Bologna, Italy.

6. Claps P., Evangelista G., **Mazzoglio P.** (**2023**). Coherence vs. Novelty: which directions towards rainstorm and flood hazard assessment for the Infrastructures in Italy? Insights from the RETURN project. In: International Workshop "Novel concepts for the mitigation of flood and drought risk - Science progress and engineering practice", 11 September 2023, Bologna, Italy.

7. Cafiero L., Viglione A., **Mazzoglio P.**, Claps P., Laio F. (**2023**). Non-stationary flood frequency analysis: a pragmatic approach applied to the Po River district. In: International Workshop "Novel concepts for the mitigation of flood and drought risk - Science progress and engineering practice", 11 September 2023, Bologna, Italy.

8. **Mazzoglio P.** (**2023**). Bridging the gap between research and the public: the role of citizen scientists in hydrology. Invited speaker at the IAHS Workshop n°3 (Leveraging non-traditional research data: advances and perspectives) organized by the IAHS Early Career Committeee during the 28th IUGG General Assembly, Berlin (Germany), 14 July 2023.

9. **Mazzoglio P.** (**2023**). Studio degli eventi idrologici estremi: a che punto siamo? Talk at the Biblioteca Civica "Don Lorenzo Milani" within the "Cervelli in città" dissemination activity series, 15 May 2023, Torino, Italy. [Video]

10. Viglione A., Cafiero L., …, **Mazzoglio P.** et al. (**2023**). Synthesis of flood frequency models: the value of uncertainty estimation. In "The future of flood research – Expectations on scientific developments in the next 10 years", Final Symposium of the SPATE Research Unit, 24 April 2023, Vienna, Austria.

11. **Mazzoglio P.** (**2023**). Verso una migliore comprensione della variabilità spaziale degli estremi pluviometrici in Italia. Invited speaker at the event "Gestione sostenibile della risorsa idrica tra emergenze e incertezze attuali e future" organized by Associazione Idrotecnica Italiana for the World Water Day, 22 March 2023, Torino, Italy.

12. **Mazzoglio P.** (**2023**). Using regionless rainfall frequency analysis to avoid data decimation. In: first webinar of the "Gotta catch'em all - A catchment by catchment hydrological adventure" series organized by BHS, YHS, YHS-IT and EGU-HS, 17th January 2023.

13. Claps P., **Mazzoglio P.**, Butera I., Ganora D. (**2022**). Nuovi eventi estremi e possibili risposte della Missione 4.2 del PNRR. In: "Workshop Nuovi estremi climatici e prevenzione dei rischi per le infrastrutture" organized by GEAM, 4 November 2022, Politecnico di Torino, Italy.

14. Claps P., **Mazzoglio P.** (**2022**). Attributing rarity to a flood disaster: an Unsolved Problems in Hydrology. Invited talk at the National Technical University of Athens, Greece, 5 April 2022.

15. **Mazzoglio P.** (**2022**). Statistical analysis of rainfall extremes over Italy: a problem-solving approach. Invited talk at the National Technical University of Athens, Greece, 5 April 2022.

16. Claps P., **Mazzoglio P.**, Deidda R., Volpini G., Perucca E. (**2021**). Updating the UPH list with recent disasters: the case of Bitti (Sardinia, 2020). In: Mini-workshop on novel hydrological concepts for the engineering practice, 29 September 2021, Bologna, Italy.

17. **Mazzoglio P**. (**2021**). Influence of geomorphological parameters on the spatial variability of rainfall extremes. In: "Talks in Eco-Hydro Research" organized by the Department of Environment, Land and Infrastructure Engineering of Politecnico di Torino, 4 June 2021, online.

18. **Mazzoglio P.** (**2021**). Estremi pluviometrici: analisi di frequenza a scala regionale. In: webinar organized by Autorità di Bacino del Fiume Po within the "Aggiornamento degli estremi idrologici nel bacino distrettuale del fiume Po" series, 29 January 2021.

19. Angeluccetti I., **Mazzoglio P**. (**2019**). An extreme rainfall detection system based on near real-time measurements. In: Seminari Internacional sobre planificació i gestió del risc d'inundació en ambients mediterranis, Palma de Mallorca (Spain), 6 March 2019.

20. **Mazzoglio P.** (**2019**). Extreme rainfall detection system based on both near real-time and forecast rainfall measurements. In: Flood forecasting meets machine learning Workshop, Google campus in Tel Aviv, 16-17 January 2019. [Presentation]

21. **Mazzoglio P.** (**2018**). The ITHACA contribution to the TRIBUTE project. In: TRIBUTE Workshop, Torino (Italy), 26 September 2018.

22. **Mazzoglio P.**, Pensa S. (**2018**). TRIBUTE in the flood events in Piedmont area. In: TRIBUTE Workshop, Palma de Mallorca (Spain), 14 June 2018.

Relevant citations during Conferences

The new version of ERDS (which I developed during my work at ITHACA) was cited or presented during some webinars/workshops organized by NASA:

- GPM application (17/05/2019). [Presentation]
- Pre-conference event of the ISPRS Symposium, 18-19/11/2018. [Training] – [Presentation – pages 7/12]
- Monitoring Urban Floods Using Remote Sensing, 01/08/2018. [Training] - [Presentation - pages 36/38].
- Monitoring Tropical Storms for Emergency Preparedness, 10/05/2018. [Training] – [Presentation – pages 25/27]

OUTREACH AND SCIENCE COMMUNICATION ACTIVITIES

Informal talks
- Presentation of SIREN project during a visit of the "Youth in time of crises" group at Politecnico di Torino. 7 June **2023**, Torino (Italy). [Website]
- Invited speaker at the "Agri-Tech" discussion table. Open Days dell'Innovazione. 6-7 March **2019**, Torino (Italy). [News]

Interviews
- TGR Marche, 14 October **2022** h 14:00. [Interview – from minute 10:00 onwards] – [Shortest version published on the TGR Marche website]

Blog posts
- Dissemination activities for SIREN citizen science project.
  - Bridging the gap between research and the public: the role of citizen scientists. YHS blog, 17 May **2023**. [Article]
  - Citizen Scientists wanted for a project on hydrological data in Italy: SIREN (Saving Italian hydRological mEasuremeNts). EGU HS blog, 19 April **2023**. [Article]
  - Blog post on idrologia@polito website, 22 March **2023**. [Article]
  - Project description of PoliTo website, 22 March **2023**. [Article in Italian] – [Article in English]
  - La Citizen Science per la Giornata Mondiale dell'Acqua. PoliFlash, 22 March **2023**. [Article]
- "L'evento pluviometrico del 15 settembre 2022 nelle Marche è eccezionale?". Article published on idrologia@polito website, 26 September **2022**. [Article]
- A revised version of this article was also re-posted on:
  - Le Scienze, 6 October **2022**. [Article]
  - Associazione Idrotecnica, 5 October **2022**. [Article]
  - PoliFlash, 5 October **2022**. [Article]
  - Giornale della Protezione Civile, 27 September **2022**. [Article]
- Preparation of several articles on YHS blog, from April 2022 onwards. "Hallway Conversations" interviews to: Heidi Kreibich (11/2022), Luca Brocca (01/2023), Alberto Viglione (02/2023).

CONFERENCE AND WEBINAR ORGANIZATION

- Webinar series "Gotta catch'em all" organized by BHS, YHS, YHS-IT and EGU-HS (January 2023 – October 2023).
- Conference "Le acque sotterranee: una risorsa invisibile" organized by Associazione Idrotecnica (Sezione Liguria, Piemonte e Valle d'Aosta) for the World Water Day 2022 In Turin, 22 March **2022**. [Program]

CONVENER

- EGU23 SC3.9 "DataViz: Visualise your data effectively and avoid common pitfalls". Convener: Swamini Khurana. Co-conveners: Edoardo Martini, Paola Mazzoglio, Epari Ritesh Patro, Roshanak Tootoonchi. [Programme]

REVIEWER

- Applied Sciences (2019, 1 article)
- Atmosphere (2019-2020, 2 articles)
- Environmental Modelling and Software (2022, 1 article)
- Environmental Research Letters (2023, 1 article)
- Hydrological Sciences Journal (2023, 2 articles)

- Hydrology and Earth System Sciences (2021, 1 article)
- ISPRS International Journal of GeoInformation (2019, 1 article)
- Journal of Hydroinformatics (2019, 1 article)
- Journal of Hydrology (2022-2023, 2 articles)
- Meteorology and Atmospheric Physics (2022, 1 article)
- Remote Sensing (2019-2020, 3 articles)
- Natural Hazards and Earth System Sciences (2023, 1 article)
- Remote Sensing of Environment (2020, 1 article)
- Stochastic Environmental Research and Risk Assessment (2023, 1 article)

NETWORKS AND MEMBERSHIPS

- AISAM member – year 2021, 2022.
- AIT member - year 2018.
- AMS member – year 2021.
- EGU member - year 2018, 2021, 2022, 2023, 2024.
- GII member – year 2020, 2021, 2022, 2023.
- SII member – year 2022, 2023.
- Young Hydrologic Society – years 2022, 2023.
- WATER YOUTH NETWORK - year 2019, 2020, 2021, 2022.

INSTITUTIONAL ROLES

- Invited member of Course of Study Boards of: Ingegneria per l'Ambiente e il Territorio (27/09/2022 - now) and Ingegneria Meccanica, Aerospaziale, dell'Autoveicolo e della Produzione (27/09/2022 - 24/09/2023).

LEADERSHIP ROLES

- **11/2023 – now.** Co-leader of REHYDRATE (REtrieve historical HYDRologic dATa and Estimates) Working group of the IAHS Science for Solutions Scientific Decade 2023-2032 HELPING (Hydrology Engaging Local People IN one Global world) Scientific.
- **02/2023 – now.** Project co-leader of SIREN (Saving Italian hydRological mEasuremeNts), self-funded citizen science initiative developed to digitize historical hydro-meteorological records from printed Italian Hydrological
- **12/2022 – now.** Task leader of Task 3.2 within WP3 of Spoke TS2 (Multi risk resilience of critical infrastructures) of RETURN (Multi-Risk sciEnce for resilienT commUnities undeR a changiNg climate) PNRR project (national).
- **01/2018 - 10/2019.** Project manager of ERDS (Extreme Rainfall Detection System).

MENTORSHIP

Research assistant

- Chiara Sacco. Scientific supervisor for the research topic "Analisi e gestione di dati di eventi idro-meteorologici estremi". 11/2023 – now.

M.Sc. Thesis relator

- Marco Chiaro. "Caratterizzazione delle portate di piena in bacini alpini / Characterization of flood discharges in alpine basins". Rel. Pierluigi Claps, Giulia Evangelista, Paola Mazzoglio. Politecnico di Torino, **2023**.
- Chiara Argentino. "Impiego di relazioni adattive nel tempo e nello spazio per la ricostruzione di campi di precipitazione / Use of adaptative tecniques in space and time in order to reconstruct the precipitation fields". Rel. Pierluigi Claps, Paola Mazzoglio. Politecnico di Torino, **2022**. [Thesis]
- Paolo Falchetti. "Utilizzo di dati di analisi retrospettiva per l'identificazione di eventi alluvionali rilevanti: applicazione al caso Italia / Use of reanalysis data to identify significant flood events: application to the case of Italy". Rel. Pierluigi Claps, Paola Mazzoglio. Politecnico di Torino, **2022**. [Thesis]

- Roberta Narcisi. "Ricostruzione delle precipitazioni areali a grande scala mediante radar meteorologici / Reconstruction of large-scale areal precipitation using meteorological radar". Rel. Pierluigi Claps, Paola Mazzoglio. Politecnico di Torino, **2022**. [Thesis]
- Paola Cicchini. "Ricostruzione delle piogge estreme giornaliere sul bacino del Po ed analisi dell'Hershfield factor / Reconstruction of daily extreme rainfall over the Po River basin and analysis of the Hershfield factor". Rel. Pierluigi Claps, Paola Mazzoglio. Politecnico di Torino, **2021**. [Thesis]
- Gloria Tranchida. "Analisi spaziale dell'andamento delle precipitazioni estreme in Italia su base morfologica e geomorfologica tramite metodologie GIS-based". Rel. Pierluigi Claps, Ilaria Butera, Paola Mazzoglio. Politecnico di Torino, **2021**. [Thesis]
- Elena Galvano. "Ricostruzione delle forzanti meteo da sensori remoti dell'evento alluvionale del 19-24/10/2019 in Piemonte / Reconstruction of the weather forcings from remote sensors of the flood event of 19-24/10/2019 in Piedmont". Rel. Pierluigi Claps, Paola Mazzoglio. Politecnico di Torino, **2020**. [Thesis]

Internship tutor

- Chiara Ferraris and Mariangela Maggi (ITHACA, 2019).

SKILLS

Languages: Italian (native language), English.

Digital skills

- Writing suites: LibreOffice, Microsoft Office, Google G-Suite, LaTeX.
- Programming languages: Matlab, Python and R.
- Operating systems: excellent knowledge of Windows; basic knowledge of Linux.
- GIS and Remote Sensing Image Processing software: ESRI ArcMap, ArcGIS Pro, QGIS, ENVI, SNAP.
- Hydrological – hydraulic software: HEC-RAS.
- Digital design: Photoshop, GIMP and Autocad.

Job-related skills

- Strong attention to details and quick analytical skills.
- Flexible to work under supervision or in autonomy. Adaptive to rapidly changing circumstances and working needs. Able to work in possibly stressful situations.
- Excellent team leadership skills in projects on a 24/7 shift gained through the management of the ITHACA production site team involved in Copernicus Emergency Management Service (June 2018 - October 2019) and during several research activities.
- Project management and project proposal writing.

Other skills

- Photography.

DRIVING LICENCE

Driving Licence: B

PRIVACY

According to law 679/2016 of the Regulation of the European Parliament of 27th April 2016, I hereby express my consent to process and use my data provided in this CV.

Torino, 19/12/2023