Marco Chericoni

Climate Scientist and Climate Change specialist

Education and training

Dec 2025 – Nov 2025 **Doctor of Philosophy – PhD in Sustainable Development and Climate Change,** *IUSS - Scuola Universitaria Superiore Pavia*

Jan 2021 - Dec 2021 **2nd Level Specializing Master in Climate Change: Adaptation and Mitigation Solutions, 110/110**, *Polytechnic University of Turin*

Oct 2017 - Sep 2020 **Master's degree in Aerospace Engineering – Fluid Dynamics**, **110/110 cum Laude,** *University of Pisa*

Oct 2014 - Oct 2017 **Bachelor's degree in civil and Environmental Engineering, 110/110,** *University of Pisa*

Work experience

Dec 2025 – now **CMCC Foundation**, *Bologna, italy*

Postdoctoral Researcher in the Earth SYstem modelling and Data Assimilation Division

Development of a regional Earth system model for the Mediterranean basin to better understand its hydrological cycle within the EU-funded RIVIERADE project.

Dec 2022 – Nov 2025 **IUSS Pavia**, *Pavia* and **ENEA - Laboratory of climate Modelling,** *Roma, italy*

PhD Candidate in Sustainable Development and Climate Change (SDC)

Understanding Mediterranean climate and extremes: from large-scale cyclones to local convective storms.
The research focuses on the impact of climate change on Mediterranean climate using both regional and global atmosphere-ocean coupled climate models.

Gen 2022 – Nov 2022 **3Bmeteo**, *Ponte San Pietro (BG)*.

Weather forecast modeller and software developer

Development of regional weather forecasting models (WRF).
Post-processing of global weather products (ECMWF, ICON, UKMO, AROME) and Earth Observation data.

Internship

Oct 2024 – Mar 2025 **University of Innsbruck**, *Innsbruck, Austria.*

Visiting researcher at the Department of Atmospheric and Cryospheric Sciences.

Understanding and projecting hail hazards in Europe using convection-permitting climate simulations and machine learning. In collaboration with ETH in Zurich.

Sep 2021 – Gen 2022 **European Centre for Medium-Range Weather Forecast,** *Reading, Great Britain.*

Research Collaborator at the Research Department in the **Coupled processes team**.

Evaluation of cities morphology parameters and comparison with available data in order to implement a new Urban scheme in the Tiled ECMWF Scheme for Surface Exchanges over Land.

Feb 2020 – July 2020 **KTH** - **Kungliga Tekniska högskolan**, *Stockholm, Sweden.*

Visiting student researcher at **Linné FLOW** Centre.

Study of the horizontally averaged structure of the flow above long wind farms and the interaction between the atmospheric boundary layer and the array of wind turbines.

List of publications

Segalini, A., & Chericoni, M. (2021). **Boundary-layer evolution over long wind farms**. Journal of Fluid Mechanics, 925, A2.

J. McNorton, et al. (2023). **An urban scheme for the ECMWF Integrated Forecasting System: Global Forecasts and Residential CO2 Emissions.** Journal of Advances in Modelling Earth Systems, Volume 15, Issue 3.

Chericoni, M. et al. (2025). **Extreme Mediterranean cyclones and associated variables in an atmosphere-only vs. an ocean-coupled regional model**. Journal of Weather and Climate Dynamic, 6, 627–643.

Chericoni, M. et al. (2025). **Unravelling drivers of the future Mediterranean precipitation paradox during cyclones**. npj Climate and Atmospheric science, 8, 260.

Skills and expertise

Regional Climate Modelling, including high-resolution ocean-atmosphere coupled models and Convection-Permitting Models, the Atmospheric dynamics and the atmospheric boundary layer processes, as well as the Climate Change impact assessments at regional level.

Computer skills

Bash, Linux, Python, Fortran, CDO, GDAL, PHP, MySQL, MongoDB, QGIS, Office, LaTeX.

Languages

Italian: Mother tongue;
English: C1, Fluent oral and written skills.
Spanish: Elementary

About me

High interest in climate physics and sensitive about climate change and its environmental and societal impacts.
Passionate about mountain environments and sports.