PERSONAL INFORMATION

Name: SEBASTIANO RONCORONI

Email: sebastiano.roncoroni@cmcc.it

RESEARCH INTERESTS

My research interests broadly include climate dynamics, climate change, and mathematical models of geophysical processes.

The main focus of my current work is statistical downscaling of climate data. Previously, I have studied the dynamics of the Southern Ocean and its forced response to wind stress changes.

PROFESSIONAL EXPERIENCE

Jul 2023 - Today: **Postdoctoral Researcher**

Centro Euro-Mediterraneo sui Cambiamenti Climatici, Bologna

Jun 2017 – Aug 2017: **Researcher**

Politecnico di Torino, Torino, Italy.
Boltzmann-like kinetic equations for vehicular traffic flow in non-homogenous spatial conditions.

EDUCATION AND TRAINING

Sep 2018 - Feb 2023: **PhD in Mathematics of Planet Earth**

University of Reading, UK.
Mechanisms of natural and forced variability in the Southern Ocean

Sep 2017 – Sep 2018: **MRes in Mathematics of Planet Earth**

University of Reading and Imperial College London, UK.
Nonlinear transient adjustment of the Southern Ocean to wind stress changes.

Sep 2014 – Mar 2017: **Master Degree in Physics**

Università degli studi dell'Insubria, Italy
Kinetic modelling of vehicular traffic flow.

Sep 2010 – Feb 2014: **Bachelor Degree in Physics**

Università degli studi dell'Insubria, Italy.
Proprietà statistiche di polimeri in soluzione: random walk model.

SKILLS

Language:

- Italian (native speaker)
- English (C2, proficient)

Programming:

- Scientific programming in Python
- High-Performance Computing and climate models
- Analysis of climate data
- UNIX language and shell scripting

TEACHING

Oct 2019 – Dec 2019: **Teaching assistant in Atmosphere and ocean dynamics**

University of Reading, UK.

Feb 2019 – Apr 2019: **Teaching assistant in Atmospheric analogues**

University of Reading, UK.

Sep 2018 – Dec 2018: **Teaching assistant in Real analysis I**

University of Reading, UK.

Mar 2016 – May 2016: **Teaching assistant in Physics I**

Università degli studi dell'Insubria, Italy

Dec 2015 – Mar 2016: **Teaching assistant in Calculus I**

Università degli studi dell'Insubria, Italy

PUBLICATIONS

- M. Herty, G. Puppo, S. Roncoroni and G. Visconti. The BGK approximation of kinetic models for traffic. *Kinetic & Related Models*, 2020, 13 (2): 279-307.

TALKS AND PRESENTATIONS

- May 2020: “Eddy-Mean flow oscillations in the Southern Ocean”, EGU sharing geosciences online.

Last update: Tuesday, 21 November 2023