

Contacts



+39 370570860



roberta.benincasa2@unibo.it



www.unibo.it/sitoweb/roberta.benincasa2



orcid.org/0009-0005-1202-5496

Profile

PhD student in Ocean and Climate Science with a background in Physics. My PhD project aims at studying ocean predictability, variability and mesoscale turbulence in the ocean, with a focus on the Mediterranean Sea, and to the application of nonequilibrium thermodynamics to the study of the predictability and the dynamics of climate oscillations such as ENSO and MJO.

Keywords

ocean predictability, climate variability, nonequilibrium thermodynamics, stochastic thermodynamics, climate oscillations, ocean mesoscale

Languages

Italian	Mothertongue
English	C2

Programming skills

Python	Advanced
Fortran	Intermediate
Bash	Intermediate

Awards

- 2nd Place of the Outstanding Young Scientist Award in the Graduate/Undergraduate's Oral Presentation category – 13th International Workshop on Modeling the Ocean (IWMO)

Roberta Benincasa

PhD student

Work experience

AUG 2023 - OCT 2023 | **UNIVERSITY OF BOLOGNA, ITALY**

Scholarship for postgraduate research activities

Affiliation: Department of Physics and Astronomy

Education and Training

SEPT 2017 - OCT 2020 | **UNIVERSITY OF TRIESTE, ITALY**

Bachelor's Degree in Physics

Final grade: 110 cum laude
Thesis' title: Analysis of climate trends of temperature and precipitation in the European region
Supervisor: Dr. Filippo Giorgi (ICTP), Prof. Dario Gaiotti (UNIITS)

SEPT 2020 - MAR 2023 | **UNIVERSITY OF BOLOGNA, ITALY**

Master's Degree in Physics of the Earth System

Final grade: 110 cum laude
Thesis' title: Ocean climate predictability study in the Mediterranean Sea
Supervisors: Prof. Nadia Pinardi (UNIBO), Dr. Giovanni Liguori (UNIBO), Prof. Hans von Storch (Helmholtz-Zentrum Hereon)

NOV 2023 - CURRENT | **UNIVERSITY OF BOLOGNA, ITALY**

PhD Student

Affiliation: Department of Physics and Astronomy
PhD Programme: Future Earth, Climate Change and Societal Challenges
Supervisors: Prof. Nadia Pinardi (UNIBO), Prof Jeffrey B. Weiss (CU Boulder)

Publications

- Benincasa, R., Liguori, G., Pinardi, N., and von Storch, H., *Internal and forced ocean variability in the Mediterranean Sea*, Ocean Sci., 20, 1003-1012, 2024

Conferences

- Oral presentation titled Internal and forced ocean variability in the Mediterranean Sea at the **13th International Workshop on Modeling the Ocean** at the Helmholtz-Zentrum Hereon, Hamburg, Germany (June 2023)
- Poster presentation titled Internal and forced ocean variability in the Mediterranean Sea at the workshop **Physics of Wave Turbulence and Beyond** at the Les Houches School of Physics, Les Houches, France (September 2024)
- Oral presentation titled NonEquilibrium Thermodynamics and Climate Predictability: Investigating Entropy Production and Frenesy at the **EGU General Assembly 2025** in Vienna, Austria (April - May 2025)