

Giacomo Giuliani

Master student at University of Bologna, Bologna, Italy.
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Date of Birth: August 4, 2000 — Bologna, Italy

RESEARCH INTERESTS

Tropical cyclones, climate dynamics and variability, air-sea interaction, extreme events, climate modelling, model assessment

EDUCATION

University of Bologna, Italy September 2022 — October 2024
Master of Science in Science of Climate - Department of Physics and Astronomy Final Grade: 110/110 cum Laude
Thesis Title: Tropical Cyclones in the CMCC Seasonal Prediction System 3.5: Performance and Model Bias
Supervisor: Prof. S. Pascale — *Co-supervisor:* Dr. L. Cavicchia

University of British Columbia, Vancouver, Canada September 2023 — December 2023
Department of Earth, Ocean, Atmospheric Sciences
Courses-based overseas exchange program

University of Bologna, Italy September 2019 — October 2022
Bachelor of Science: Physics Final Grade: 110/110
Thesis Title: Analysis of in vitro cell migration in the presence and absence of an electric field

EXPERIENCE

Euro-Mediterranean Centre on Climate Change Bologna, Italy
Junior Research Associate 12/2024 -

- Used an EM algorithm to perform cluster analysis on tropical cyclone tracks
- Improvement of tropical cyclone forecasts on subseasonal to seasonal scales

Euro-Mediterranean Centre on Climate Change Bologna, Italy
Research Intern 03/2024 — 07/2024

- Used algorithm to detect and track tropical cyclones
- Worked with seasonal forecast dynamical models
- Used Python for Data Analysis and Linux shell scripting for automation

Biophysics Laboratory - University of Bologna Bologna, Italy
Research Intern 09/2021 — 04/2022

- Cultivation and preparation of T98G cells for an electrotaxis experiment
- Used MATLAB for Data Analysis

PUBLICATIONS

- Zironi, I., Cramer, T., Fuschi, A., Cioni, M., Guerra, G., **Giuliani, G.**, Calienni, M., Caramazza, L., Liberti, M., Apollonio, F., Remondini, D., Castellani, G., (2024). Enhancing cell motility via non-contact capacitively coupled electrostatic field. *Scientific Reports*, 14(1), 28085.

GRANTS AND FELLOWSHIPS

- Awarded a scholarship from the University of Bologna to participate in a semester-long exchange program at University of British Columbia, Vancouver, CA (A.Y. 2023/2024).
- Awarded a financial incentive by the University of Bologna to participate in the TROPICANA program (A.Y. 2023/2024).

SCHOOLS and PROGRAMS

June 2024 - **TROPICANA** University Paris-Saclay, France
"The Tropical Cyclones in Anthropocene: Physics, Simulations, and Attribution"
August 2022 - **International Summer School** University of Bern, Switzerland
"Confronting Climate Change - from Science to Policy"

OTHER EXPERIENCES

Internationalization Tutor

Academic Tutor

University of Bologna

01/2024 — 10/2024

- Assisting students with academic and administrative queries
- Guiding bachelor's degree students in selecting the MS Science of Climate program
- Providing support for Erasmus and study abroad programs

SKILLS

- **Programming:** Python, LaTeX (Proficient), MATLAB, Bash (competent), R, C++ (Basic Knowledge)
- **Soft Skills:** Data Analysis, Data Visualization, Oral Presentation, Teamwork-oriented
- **Language:** Italian (Mother tongue), English (TOEFL iBT: 105)