


PERSONAL INFORMATION **Marco Boetti** marco.boetti@cmcc.it www.linkedin.com/in/marco-boetti-92b9b5114/ [ORCID 0000-0003-2505-5764](https://orcid.org/0000-0003-2505-5764)

EXPERIENCE

December 2023 – **Postdoctoral Researcher**

Centro Euro-Mediterraneo sui Cambiamenti Climatici (CMCC), Lecce, Italy

March 2017 – March 2021 **Early Stage Researcher**

Marie Curie Fellow at COMPLETE ITN - ETN NETWORK EU Horizon 2020

Tel Aviv University, Tel Aviv, Israel

The project I am in charge of consists of the study of physical processes that take place in Turbulent/Non-Turbulent Interface (TNTI) in stratified flows through numerical modeling. The investigation of these fluxes is made through Direct Numerical Simulations (DNS) in the Eulerian framework (the code used is based on Fortran95). Moreover, new algorithms are developed (mainly in Python and Matlab) to tackle the problem from the Lagrangian point of view, which includes the analysis of both passive tracers and inertial particles.

September 2015 – January 2017 **Graduate assistant**

Grant holder at Labflux-DIST (Inter-university Department of Regional and Urban Studies and Planning), Torino

Development of numerical tools for the study of water fluxes focusing mainly on soil-atmosphere exchanges, examining both the liquid and the vapour phases.

July 2014 – April 2015 **Internship**

ISAC-CNR (Institute of Atmospheric Sciences and Climate, National Research Council of Italy), Torino

The work is about the study of atmospheric dispersion through numerical modeling by means of a Lagrangian Stochastic Particle model (based on Fortran77 and Fortran90 programming language). The case study examined is about the large scale dispersion of Caesium-137 isotopes released from the Fukushima Dai-Ichi nuclear power plant as a consequence of the earthquake and following tsunami of March 11th, 2011. The update and development of new features within the model allowed to obtain interesting results of transport, diffusion, and deposition of passive tracers, representing Ce-137, throughout the Northern Hemisphere.

EDUCATION

9/2018 **Research Secondment**

Imperial College London, Faculty of Engineering, Department of Civil and Environmental Engineering

7–8/2017 **Research Secondment**

Imperial College London, Faculty of Engineering, Department of Civil and Environmental Engineering

2017–2023 **PhD**

Tel Aviv University, Faculty of Engineering, School of Mechanical Engineering

2012–2015 **Master Degree in Physics**
Università degli Studi di Torino, Italy

2008–2012 **Bachelor Degree in Physics**
Università degli Studi di Torino, Italy

LANGUAGE SKILLS

Mother tongue Italian

Other languages

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	C1	C1	C1
French	A1	A2	A1	A1	A1
Hebrew	A1	A1	A1	A1	A1

Levels: A1 and A2: Basic user – B1 and B2: Independent user – C1 and C2: Proficient user
[Common European Framework of Reference for Languages](#)

DIGITAL SKILLS

Programming Languages

- Fortran95,
- C++,
- Python,
- Matlab,
- Mathematica

PUBLICATIONS

- [1] **Marco Boetti**, Silvia Trini Castelli, and Enrico Ferrero. “Reviving MILORD Long-Range Model for Simulating the Dispersion of the Release during Fukushima Nuclear Power Plant Accident”. In: *Air Pollution Modeling and its Application XXV*. Ed. by Clemens Mensink and George Kallos. Cham: Springer International Publishing, 2018, pp. 387–391.
- [2] **Marco Boetti**, Maarten van Reeuwijk, and Alexander Liberzon. “Potential-entropy lengthscale for the turbulent/nonturbulent interface in stratified flow”. In: *Phys. Rev. Fluids* 6 (11 Nov. 2021), p. 114803. URL: <https://link.aps.org/doi/10.1103/PhysRevFluids.6.114803>.
- [3] D. Gisolo, M. Previati, I. Bevilacqua, D. Canone, **M. Boetti**, N. Dematteis, J. Balocco, S. Ferrari, A. Gentile, M. N’sassila, B. Heery, H. Vereecken, and S. Ferraris. “A calibration free radiation driven model for estimating actual evapotranspiration of mountain grasslands (CLIME-MG)”. In: *Journal of Hydrology* 610 (2022), p. 127948. URL: <https://www.sciencedirect.com/science/article/pii/S0022169422005236>.
- [4] **Marco Boetti** and Lilly Verso. “Force on inertial particles crossing a two layer stratified turbulent/non-turbulent interface”. In: *International Journal of Multiphase Flow* (2022), p. 104153. URL: <https://www.sciencedirect.com/science/article/pii/S0301932222001410>.
- [5] **Marco Boetti**. “Pair dispersion of inertial particles crossing stably stratified turbulent/non-turbulent interfaces”. In: *International Journal of Multiphase Flow* 166 (2023), p. 104502. URL: <https://www.sciencedirect.com/science/article/pii/S0301932223001234>.