

PERSONAL INFORMATION **Leonardo Caciolla****EDUCATION AND TRAINING****2021 – 2025** **PhD in Theoretical and Applied Mechanics**

Thesis Title: “Evaporation and condensation of micro and nano droplets“

Sapienza University of Rome, Italy

The work focused on phase transitions in micro- and nanoscale droplets, analysing their dynamics using the diffuse interface model. For droplet condensation, the model was coupled with the String method (a rare event technique) to describe the nucleation phenomenon. Numerical simulations were carried out to investigate evaporation and condensation of both free droplets and droplets on solid substrates. The coupling between hydrodynamics and thermodynamics at the mesoscale enabled the study of key phenomena including phase-change dynamics, the Marangoni effect, and the influence of substrate temperature and wettability.

26 – 30 June 2023 **Advanced Course**

Liquid Interfaces, Drops and Sprays (LIDESP)

CISM - International Centre for Mechanical Sciences of Udine, Italy

2018 – 2021 **Master of Mechanical Engineering**

Sapienza University of Rome, Italy

February – August 2020 **Erasmus+ – Master of Mechanical Engineering**

Gdańsk University of Technology, Poland

2015 – 2018 **Bachelor of Mechanical Engineering**

Sapienza University of Rome, Italy

TEACHING EXPERIENCE**January 2025 – April 2025** **Teaching courses**

Temple University Abroad - Rome, Italy

- Professor in College Algebra course
- Teaching Assistant in Classical and statistical Thermodynamics course

April 2024 – July 2023 **Tutoring courses**

Sapienza University of Rome, Italy

Tutoring in Calculus I for Engineering students

October 2023 – January 2024 **Tutoring courses**

Sapienza University of Rome, Italy

Tutoring in Calculus I, Mechanical and Energy Engineering

September 2022 – July 2023 **Tutoring courses**

Sapienza University of Rome, Italy

Support, assistance and tutoring for students with DSA and disabilities.

RESEARCH ACTIVITIES

Conference Talks

16 – 20 September 2024 1st European Fluid Dynamics Conference
Talk Title: “Evaporation of micro and nano droplets”

PERSONAL SKILLS

Mother tongue Italian

Other languages

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	C1	C1	C1

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

Computer skills – competent with GPU and MPI parallel programming for HPC systems