

Michele Cogo

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About me

I am a PhD candidate in fluid dynamics for aerospace applications, passionate about computational physics, programming, and data visualization.

Areas of specialization

Computational fluid dynamics
• Aerothermodynamics • High performance computing
• Data visualization ([example](#))

Interests

Spaceflight • Physics
• Programming

Soft skills

Critical Thinking • Resilience and Adaptability • Teamwork

Summer jobs

Cars/Motorcycles repairs
• Motorbike Graphic Designer

Hobbies

Soccer • Motocross
• Downhill • Podcasts

Michele Cogo

ACADEMIC EMPLOYMENT

2021-2024	PhD in Sciences, Technologies and Measurements for Space UNIVERSITY OF PADOVA • Padua, Italy 📍 High-fidelity simulations of high speed flows for aerospace problems.
12/2020-08/2021	Early-stage researcher in computational fluid dynamics SAPIENZA UNIVERSITY OF ROME • Rome, Italy 📍 Numerical simulations of turbulent wall-bounded flows at high Mach numbers using GPU clusters.

EXPERIENCE

06/2023-11/2023	Visiting researcher - Fulbright scholarship CENTER FOR TURBULENCE RESEARCH, STANFORD UNIVERSITY • Stanford, USA 📍 Development of novel methods to model chemically-reacting boundary layers for aerospace flight.
10/2022-02/2023	Visiting researcher TU DELFT • Delft, The Netherlands 📍 Study of supersonic flows over rough surfaces with GPU accelerated numerical solvers .
2019-2020	Students project UNIVERSITY OF PADOVA • Padua, Italy 📍 Transdisciplinary Hybrid Rocket for University Students' Training " THRUST ".

EDUCATION

2018	Aerospace Engineering BACHELOR • University of Padova 🎓
2020	Aerospace Engineering MASTER'S • University of Padova 🎓 110/110 cum laude

PROGRAMMING & TOOLS

Fortran for HPC	<div></div>
Python, Matlab/Simulink, C++	<div></div>
Commercial softwares	<div></div>
Neural networks	<div></div>
Visualization tools	<div></div>
Technical reporting	<div></div>

GRANTS & AWARDS

2022-2024	High-performance computing research grants from CINECA and EuroHPC
2023	Fulbright Scholarship
2023	Zegna Founder's scholarship
2023	Franklin P. and Caroline M. Johnson Fellowship
2020	Excellence award for Aerospace Engineering Master's Thesis

PUBLICATIONS

2021-2024	Peer-reviewed publications and conference proceedings: Google Scholar
2023-2024	Referee for peer-reviewed journals

TALKS

Feb. 2024	Invited talk on " Physical and modeling aspects of highly-compressible boundary layers ", at: SISSA in Trieste, Italy.
2021-2024	Talks in several fluid dynamics conferences as part of the PhD.

LANGUAGES

Italian	C2	mother tongue
English	C1	<div></div>