

PERSONAL INFORMATION

Federico Ghioldi

✉ federico.ghioldi@polimi.it

EDUCATION

11/2019 - present

Ph.D. in Aeronautical Engineering
Politecnico di Milano, Milano (Italy)

EQF level 8

10/2016 - 04/2019

M.Sc. in Aeronautical Engineering
Politecnico di Milano, Milano (Italy)

EQF level 7

110/100 cum Laude

09/2012 - 09/2016

Bachelor's degree in Aerospace Engineering
Politecnico di Milano, Milano (Italy)

EQF level 6

ACADEMIC EXPERIENCE (Papers and Conferences)

27/05/2022

F. Ghioldi, F. Piscaglia, "GPU-Accelerated Simulation of Supersonic Combustion in Scramjet Engines by OpenFOAM", 33rd International Conference on Parallel Computational Fluid Dynamics

25/05/2022

D. Costero, F. Ghioldi, S.M. Aithal, F. Piscaglia, "Novel Developments for Rapid Reactive CFD Simulations of Dual-Fuel IC Engines", 33rd Int. Conf. on Parallel Computational Fluid Dynamics

15/10/2021

F. Ghioldi, J. Hélie, F. Piscaglia, "A Fast Computational Method for the Optimal Thermal Design of Anisotropic Multilayer Structures with Discrete Heat Sources for Electrified Propulsion Systems", International Journal of Heat and Mass Transfer

19/10/2021

E. Gallorini, F. Ghioldi, S. M. Aithal, F. Magugliani, F. Piscaglia, "A Methodology for the Aero-thermal Optimization of Hybrid and Electric Propulsion Systems", 9th Annual OpenFOAM User Conference

02/09/2021

F. Ghioldi, E. Gallorini, S.M. Aithal and F. Piscaglia, "A CFD Methodology for the Optimal Thermal Design of the Propulsion System in Electric Motors", AIDAA, XXVI International Congress

14/10/2020

F. Ghioldi, F. Piscaglia, "A CPU-GPU Paradigm to Accelerate Turbulent Combustion and Reactive-Flow CFD Simulations", 8th Annual OpenFOAM User Conference 2020

WORK EXPERIENCE

09/2021 - present

Graduate Teaching Assistant

For the course "Computational Techniques for Thermochemical Propulsion" (M.Sc.)
Politecnico di Milano (Italy), Department of Aerospace Science and Technology (DAER)

09/2021 - 12/2021

Graduate Teaching Assistant

For the course "Aerodynamics" (M.Sc.)
Politecnico di Milano (Italy), Department of Aerospace Science and Technology (DAER)

PERSONAL SKILLS

Mother tongue

Italian

Foreign language(s)

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

Levels: A1 and A2: Basic user - B1 and B2: Independent user - C1 and C2: Proficient user

Communication skills

Good communication skills obtained through the development of team projects carried out in university courses related to aerodynamics and task organization and control.

Job-related skills

Competence in using computational and design software. Ability to develop projects and components via CAD software (SolidWorks, SolidEdge, Inventor, AutoCAD), and CFD analysis using OpenFOAM. Programming capability in Python, Matlab, C++, CUDA-C.

Job interests

Aerospace and Aeronautical Technology. Motorsport and related technical development. Design and development of projects related to innovation.

Voluntary work

Volunteer experiences and help to elderly and people with disabilities. Member of Italian blood donation association (AVIS)