PERSONAL INFORMATION   Daniele Rossi

EDUCATION AND TRAINING

2021 – ongoing studies

Dottorato in Ingegneria Aeronautica e Spaziale   EQF level 8
Sapienza Università di Roma

Doctor of Philosophy (Ph.D.)

Main research interests: Computational Fluid Dynamics, Numerical simulations of Multiphase Flows.

Scientific publications:

- **Navier-Stokes simulations of vertical sloshing with time-periodic excitation**, Daniele Rossi, Davide Ubaldini, Simone Di Giorgio, Sergio Pirozzoli, International Journal of Multiphase Flow, 2023, 167:104505. DOI:https://doi.org/10.1016/j.ijmultiphase ow.2023.104505

- **Simulations of vertical sloshing in a partially filled rectangular tank subjected to time-periodic excitation**, Daniele Rossi, Material Research Proceedings, Vol.33, pp 269-276, 2023. DOI: https://doi.org/10.21741/9781644902677 39

Conferences attended:

- **3rd Aerospace PhD-Days 2023- International congress of PhD students in aerospace science and engineering,** April 16-19, 2023, Bertinoro (FC), Italy;

- **International Conference on Numerical Methods in Multiphase Flows – 5 (ICNMMF-5),** June 26-28, 2024, Reykjavik, Iceland.

Courses attended**:**

- **Open Access delle pubblicazioni e dei dati della ricerca,** November 16, 2021, Sapienza University of Rome, Italy;

- **Banche dati e strumenti digitali a supporto della Ricerca disponibili in Sapienza: Funding institutional, Scival, Scopus, JCR (Clarivate), Research Gate,** November 23, 2021, Sapienza University of Rome, Italy;

- **Introduction to Parallel Computing with MPI and OpenMP,** March 07, 2022, Cineca Academy;

- **Debugging and Optimization of Scientific Applications,** March 14, 2022, Cineca Academy;

- **Introduction to Fortran for Scientific Computing,** March 22, 2022, Cineca Academy;

- **S.G.I. CFD Summer School (School on Computational Fluid Dynamics & SuperComputing - CFD parschool),** July 17-22, 2022, Gran Sasso Science Institute (GSSI), L'Aquila, Italy;

- **Introduction to high-performance computing,** April, 2023, Sapienza University of Rome, Italy;

- **Risk theory in aerospace engineering,** April, 2023, Sapienza University of Rome, Italy;

- **Introduction to Python programming,** April, 2023, Sapienza University of Rome, Italy;

- **Computer Vision,** June, 2023, Sapienza University of Rome, Italy;

- **Liquid Interfaces, Drops and Sprays (LIDESP),** June 26-30, 2023, International Centre for Mechanical Sciences (CISM), Udine, Italy.

2017 - 2021	**Laurea Magistrale in Ingegneria Aeronautica** EQF level 7

Sapienza Università di Roma – Faculty of Civil and Industrial Engineering

2nd level-cycle degree/Master of Science (2 years)

Thesis title: Direct Numerical Simulation of non-circular jets

Final degree mark: **110/110 cum laude**

Graduation date: 25/10/2021

Principal subjects covered during the course:

- **Fluid dynamics:** Gas dynamics, Aircraft Aerodynamics and Design, Computational Fluid Dynamics, Aeroacoustics
- **Aeronautical Propulsion:** Design of Aircraft Engines, Environmental Impact of Aircraft Engines
- **Aerospace Structures:** Aeronautical constructions, Vibration and Noise control
- **Telecommunications:** Air Traffic Control

2014 - 2017	**Laurea in Ingegneria Aerospaziale** EQF level 6

Sapienza Università di Roma – Faculty of Civil and Industrial Engineering

1st level-cycle degree/Bachelor (3 years)

Final degree mark: **110/110**

Graduation date: 14/12/2017

Pre-university studies

Secondary school diploma: Scientific High School

INNOCENZO XII, ANZIO (RM)

School-leaving examination mark: **100/100**

School-leaving examination taken in (year): 2014

Italian secondary school diploma

PERSONAL SKILLS

Mother tongue(s)   Italian

Other language(s)

UNDERSTANDING		SPEAKING		WRITING
Listening	Reading	Spoken interaction	Spoken production	
B2 - Independent	B2 - Independent	B2 - Independent	B2 - Independent	B2 - Independent

English

English: Cambridge English Qualification (Level B2 First) – University of Cambridge (UK), 2018 – European Level: B2

Digital Competences

ECDL: AICA Digital Academy 2013

Computer skills

OFFICE AUTOMATION
Office suite: Microsoft Office, LibreOffice | **Spreadsheets:** Microsoft Excel
Word processors: Microsoft Word, LaTeX

APPLICATION SOFTWARE
CAD – Assisted Design: Solid Edge, Solid Works, OpenSCAD (Intermediate)

Dynamical Systems Design: Simulink (Intermediate)
CFD toolbox: OpenFOAM (Intermediate), Ansys Fluent (Intermediate)

COMPUTER PROGRAMMING
Programming Languages: MATLAB, Fortran, Wolfram Language (Intermediate)

ADDITIONAL COMPETENCES
AND TRAINING

2017 - 2019   **FORMULA SAE (student design competition organized by SAE international):** Member of the 'mechanics and aerodynamics' department of Fast Charge, the Formula Student Electric team of Sapienza Università di Roma, that works on the design, building and testing of a prototype of a Formula-style electric race car, based on a series of rules, whose purpose is both ensuring on-track safety and promoting clever problem solving.

Used softwares: MATLAB, Solid Works (CAD – Assisted Design), Ansys Fluent (Fluid Simulation Software)

Driving licence   B