

**Matteo Fonsetti****WORK EXPERIENCE****ALMA MATER STUDIORUM - UNIVERSITY OF BOLOGNA****PHD STUDENT – 01/11/2024 – CURRENT**

PhD Student, Radio Science and Planetary Exploration Laboratory, Alma Mater Studiorum - University of Bologna
Topic: Study of Jupiter's System through Radio Occultation Experiments.

KTH ROYAL INSTITUTE OF TECHNOLOGY – STOCKHOLM, SWEDEN**VISITING RESEARCH STUDENT – 03/2025 – 07/2025**

Visiting Research Student, KTH Royal Institute of Technology - Department of Space and Plasma Physics
Topic: Plasma Physics. Modeling of the ionospheres of Icy Moons.

ALMA MATER STUDIORUM - UNIVERSITY OF BOLOGNA**RESEARCH FELLOW – 04/2024 – 10/2024**

Research Fellow, Radio Science and Planetary Exploration, Alma Mater Studiorum - University of Bologna
Topics:

- Analysis of radio occultation experiments;
- Orbital determination analysis of the binary asteroid Didymos/Dimorphos for Planetary Defense applications.

**SCIENCE COMMUNICATOR – 2018 – CURRENT**

- Author of Astrophysics articles for the Ravenna Planetarium and for Wikipedia;
- Author of educational videos on Linear Algebra for University students;
- Astrophysics lectures in cultural associations and primary/secondary schools.

**PRIVATE TUTOR AND PHYSICS TEACHER – 2019 – 2024**

2019-2024: Private Tutor in Physics, Mathematics and Programming for University and Secondary School students;
Dec 2023: Physics teacher at the Scientific High School "A. Oriani", Ravenna, until the return of the tenured professor.

**STARTUP MANAGER – 2017 – 2020**

Founded and directed F2F Translations, a temporary start-up specialized in translation, interpretation, and localization services, from and to 25 languages:

- Managed over 60 collaborators and worked with major clients, including the University of Bologna, Ferrara Fiere, Dixie, Imperial, Please, New York Institute, Football Ticket Pad, and Rockin' 1000;
- Selected as finalists in the start-up competition promoted by Lega Coop in 2017;
- My main responsibilities included internal project management, promoting the start-up locally, and developing and managing the online work platform.

CONFERENCES AND SEMINARS

12/05/2025 – 16/05/2025 Uppsala, Sweden

JUICE SWT 2025

The Shape of Jupiter Redefined by Juno. Oral presentation.

27/04/2025 – 02/05/2025 Vienna, Austria

EGU General Assembly 2025

Geodetic Modeling of Gas Giants: An Integrated Approach Applied to Jupiter. Oral presentation.

25/03/2025 – 27/03/2025 Kiruna, Sweden

Swedish Space Plasma Meeting - SRS

Investigating the Jovian System with Radio Occultations. Poster presentation.

18/11/2024 – 21/11/2024 ESA/ESOC, Darmstadt, Germany

JUICE SWT 2024

Analysis of the Radio Occultation Opportunities with JUICE. Oral presentation.

● **EDUCATION AND TRAINING**

10/2023 – 05/2024 Forlì, Italy

INVESTIGATION OF GAS GIANTS AND ICY GIANTS THROUGH RADIO OCCULTATION EXPERIMENTS Alma Mater Studiorum - University of Bologna

Field of study Planetary Astrophysics

09/2020 – 03/2024 Bologna, Italy

MASTER'S DEGREE Alma Mater Studiorum - University of Bologna

Field of study Astrophysics and Cosmology | **Final grade** 110/110 | .

Thesis Updating Jupiter's Shape integrating novel gravity experiments results and radio occultation measurements.

30/10/2023 – 30/10/2023

INTRODUCTION TO DEEP LEARNING IN PYTHON DataCamp

Online course with final examination.

2022 – 2023 Rome, Italy

SPACE INSTRUMENTS Tor Vergata University of Rome

Lessons on space instrumentation held by Doctor Professor Marco Casolino for master's and doctoral students in physics in collaboration with the Italian Society for the Advancement of Science (SIPS).

Field of study Astronomical Instrumentation

07/2022 – 07/2022 Bologna, Italy

SUMMER SCHOOL IN QUANTUM SENSING, INFORMATION PROCESSING AND COMPUTING - SHAPING THE FUTURE WITH THE SECOND QUANTUM REVOLUTION Alma Mater Studiorum - University of Bologna

Website bit.ly/Quantumsensing | **Field of study** Quantum Science and Technology

10/2012 – 10/2020 Bologna, Italy

BACHELOR'S DEGREE Alma Mater Studiorum - University of Bologna

Note: I suspended my studies from 2012 to 2017 due to work-related reasons. I resumed them in 2017 and completed them in 2020 as a working student.

Field of study Physics |

Thesis Modeling the cosmic-ray proton flux on low Earth orbit space telescopes: study of the accuracy with respect to in-flight measurements.

● **LANGUAGE SKILLS**

Mother tongue(s): **ITALIAN**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	C1	C2	C1	C1	C1

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

● SKILLS

Programming Languages

C | C++ | Python | Fortran | MATLAB | BIG HUGE | LabVIEW

Parallel Computing

High Performance Computing | MPI (Message Passing Interface)

Neural Networks

Deep Neural Networks | Graph Neural Networks | TensorFlow | Keras | PyTorch Geometric | Spektral

● HOBBIES AND INTERESTS

Videogame Modding

- Graphic Design - 2D/3D modeling, models animations, graphic effects;
- Artificial Intelligence.

I hereby authorize the processing of my personal data in accordance with Legislative Decree No. 196 of 30 June 2003 and with the GDPR (EU Regulation 2016/679) for the purposes of personnel selection.

Ravenna , 08/09/2025



Matteo Fonsetti