



Francesco Sena

● WORK EXPERIENCE

RESEARCHER

Conference attended: *31st AAS/AIAA Space Flight Mechanics Meeting, Virtual* (February 1-4, 2021)
Scientific paper: Sena Francesco, D'Ambrosio Andrea, Curti Fabio, *Study on Interplanetary Trajectories Towards Uranus and Neptune*, Proceedings of the 31st AAS/AIAA Space Flight Mechanics Meeting, 2021
https://www.researchgate.net/publication/349043810_Study_on_Interplanetary_Trajectories_towards_Uranus_and_Neptune

RESEARCHER

Conference attended: 3rd European Mineralogical Conference EMC2020 (August 29th - September 2nd 2021)
Conference poster: Stopponi Veronica, Stagno Vincenzo, Sena Francesco, Marras Giulia, Codispoti Niccolò, Gréaux Steeve, *Mobility of volatile implications for CO₂-bearing magmas in oxidised planetesimals: loss and storage during accretion*, Book of Abstracts 3rd European Mineralogical Conference EMC 2020, Cracow, Poland
<https://iris.uniroma1.it/handle/11573/1568846>

29/02/2020 – 29/09/2020 – Rome, Italy

COLLABORATOR – SAPIENZA UNIVERSITY OF ROME

Student-collaboration scholarships at La Sapienza University of Rome collaborating in libraries, reception and information centres for students.

<https://www.uniroma1.it/en/pagina/student-collaboration-scholarships>

28/02/2018 – 29/04/2018 – Rome, Italy

TUTOR IN BASIC MATHEMATICS – LICEO SCIENTIFICO STATALE "TERESA GULLACE"

Improving high-school students preparation for the Italian Mathematical Olympiad

● EDUCATION AND TRAINING

23/10/2020 – CURRENT – Rome, Italy

MASTER DEGREE – Sapienza University of Rome

Main subjects: Gasdynamics, Astrodynamics, Control Systems, Rocket Propulsion, Space Missions and Systems, Space Structures, Artificial Intelligence, Interplanetary Trajectories, Electronics of Space Systems, Space Robotic Systems, Advanced Spacecraft Dynamics, Multibody Space Structures.

Main skills acquired: Ability to work as system engineer in different team activities and as independent researcher.

Address Piazzale Aldo Moro, 5, Rome, Italy |

Website <https://corsidilaurea.uniroma1.it/it/corso/2020/29396/home> |

Field of study Space and Astronautical Engineering

01/11/2017 – CURRENT – Roma, Italy

HONORS COLLEGE – Sapienza School for Advanced Studies

The Sapienza School for Advanced Studies (SSAS) offers winners of a highly selective national test a complementary training course, which supports and integrates curricular courses with advanced courses and activities of a disciplinary and interdisciplinary nature, as annual individual and collective research projects.

Annual Research Projects:

- “Dynamic Modeling and Control of Articulated Space Systems” (2021)
- “Dynamic Habitability: Prospettive attorno alle Stelle M” (2020)
- “Droplet Homogeneous Nucleation and Condensation” (2019)
- “A Flying Inverted Pendulum” (2018)

Main subjects: Biology, Programming with Python, Fluidodynamics, Statistical Methods, Blockchain, Control of Dynamical Systems, Bioinformatics, Geomatics and Geoinformation

Main skills acquired: Ability to work in large interdisciplinary groups and to provide independent research results.

Address Viale Regina Elena, 291, Roma, Italy |

Website <https://web.uniroma1.it/ssas/en/ssas/ssas/about-us> | **Final grade** 70 with honors/70 |

Thesis Dynamic Habitability: Prospettive attorno alle Stelle M (Bachelor Thesis, 2020)

08/08/2022 – 17/08/2022

ESA ACADEMY - LIVESTREAM OF CUBESAT SUMMER SCHOOL 2022 – European Space Agency

Website https://www.esa.int/Education/ESA_Academy/ESA_Academy_s_CubeSat_Summer_School_2022

02/05/2021 – 06/05/2021

ESA ACADEMY - ONLINE CLEAN SPACE TRAINING COURSE 2021 – European Space Agency

Website https://www.esa.int/Education/ESA_Academy/Online_Clean_Space_Training_Course_2021_challenges_university_students_to_clean_a_Mega_Constellation

24/09/2017 – 22/10/2020 – Rome, Italy

BACHELOR DEGREE – Sapienza University of Rome

Main subjects: Mathematics and Numerical Methods, Chemistry, Physical and Analytical Mechanics, Materials Science, Electrotechnics, Applied Mechanics and Design, Mechanics of Solids, Aerodynamics, Propulsion, Structures, Flight Mechanics, Space Environment, Space Systems, Systems for Space Exploration

Main skills acquired: Teamwork and independent research skills in the aerospace field

Address Piazzale Aldo Moro, 5, Rome, Italy |

Website <https://corsidilaurea.uniroma1.it/it/corso/2017/29394/home> |

Field of study Aerospace Engineering | **Final grade** 110 with honors/110 |

Thesis Study on Interplanetary Trajectories Towards Uranus and Neptune |

https://www.researchgate.net/publication/349043810_Study_on_Interplanetary_Trajectories_towards_Uranus_and_Neptune

23/09/2012 – 29/06/2017 – Rome, Italy

HIGH SCHOOL DIPLOMA – Liceo Teresa Gullace Talotta

Address Piazza dei Cavalieri del Lavoro, 18, Rome, Italy | **Website** <https://www.liceogullace.edu.it/> |

Field of study Scientific Studies | **Final grade** 100/100

● LANGUAGE SKILLS

Mother tongue(s): **ITALIAN**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	C1	C1	C1	C1	C1
SPANISH	B2	B2	B2	B2	B2

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

● DIGITAL SKILLS

My Digital Skills

MATLAB&Simulink | Microsoft Office (Microsoft | CATIA V5/V6 | Patran/Nastran | Linguaggio di programmazione LaTeX | MSC Adams | Google Earth Engine | Python