PERSONAL INFORMATION Edoardo Maria Leonardi

Nationality Italian

EDUCATION AND TRAINING

2022-present Phd in Energy and Environment

Sapienza University of Rome

Subject: Applications of astrodynamics for space exploration and sustainable management
Supervisor: Prof. Mauro Pontani

2018-2022 Master's degree in Space and Astronautical Engineering

Sapienza University of Rome

Final grade: 110/110 cum laude | GPA: 29.47/30

Thesis: "Trajectory optimization and multiple-sliding-surface terminal guidance in the lifting atmospheric reentry "

Supervisor: Prof. Mauro Pontani

2015-2018 Bachelor's degree in Aerospace Engineering

Sapienza University of Rome

Final grade: 110/110 cum laude | GPA: 29.49/30

Thesis: "Optimal two- and three- dimensional Earth-Moon orbit transfers"

Supervisor: Prof. Mauro Pontani

2010-2015 High School diploma

Liceo Scientifico "Virgilio" in Rome

Final grade: 100/100 cum laude

TEACHING

2024 Tutoring experience

Sapienza University of Rome

Tutor for the course of Physics - Bachelor's degree in Mechanical Engineering

2024 Private teaching

College of excellence "Camplus Pietralata"

Private teaching for university students in preparation of Physics 1 exams

PERSONAL SKILLS

Mother tongue Italian

Other languages	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	C1	C1	C1

		Certificate in Advanced English (CAE) C1		
French	A1	A1	A1	A1	A1

Computer skills
- full proficiency in Matlab/Simulink
- advanced X-Plane user
- competent in Office programmes and Latex

Other skills Enjoy running, mountain hiking, cycling, skiing, playing volleyball and swimming | Marathon runner |Member of the International Virtual Aviation Organization (+100 hrs as flight simulator pilot) | Year-long experience as educator for teenagers | Basic Life Support and Defibrillator Operator certificate | Transverse flute and guitar player.

HONOURS AND AWARDS

2019 Space missions and systems challenge (Prof. Luciano Iess)
Estimation of Cassini orbit insertion maneuver from range/range rate observables - top-three finisher

2015-2019 University merit scholarship
Fee exemption as deserving student

2015 National Excellence Honour roll (MIUR)
Scholarship as student that have obtained a mark of 100 with honours in the state exam

PUBLICATIONS

[1] E. M. Leonardi and M. Pontani. "Optimal two - and three - dimensional Earth-Moon orbit transfers." In: *AIDAA XXV International Congress* (2019).

[2] E. M. Leonardi and M. Pontani. "Optimal two - and three - dimensional Earth-Moon orbit transfers". In: *Aerotecnica Missili & Spazio,* Vol. 99 (2020), pp. 195-202.

[3] E. M. Leonardi, A. Vitiello, and M. Pontani. "Three-dimensional atmospheric descent and landing via multiple-sliding-surface guidance". In: *AIAA/AAS Astrodynamics Specialist Conference* (2021).

[4] A. Vitiello, E. M. Leonardi, and M. Pontani. "Multiple-sliding surface guidance and control for terminal atmospheric reentry and precise landing". In: *IAC 72nd International Astronautical Congress* (2021).

[5] A. Vitiello, E. M. Leonardi, and M. Pontani. "Multiple-sliding-surface guidance and control for terminal atmospheric reentry and precise landing". In: *Journal of Spacecraft and Rockets* 60.3 (2023), pp. 912–923.

[6] E. M. Leonardi and M. Pontani. "Trajectory optimization and multiple-sliding-surface terminal guidance in the lifting atmospheric reentry". In: *AIDAA XXVII International Congress* (2023).

[7] E. M. Leonardi, M. Pontani, S. Carletta, and P. Teofilato. "Low-Thrust Nonlinear Orbit Control for Very Low Lunar Orbits". In: *Applied Sciences* 14.5 (2024), p. 1924.

[8] E. M. Leonardi and M. Pontani. "Trajectory optimization and multiple-sliding-surface terminal guidance in the lifting atmospheric reentry". In: *Aerotecnica Missili & Spazio* (2024), pp. 1-20.

[9] D. Sanna, E. M. Leonardi, G. De Angelis, and M. Pontani. "Optimal Impulsive Orbit Transfers from Gateway to Low Lunar Orbit". In: *Aerospace* 11.6 (2024), p. 460.

[10] G. De Angelis, S. Carletta, E. M. Leonardi, M. Pontani, and P. Teofilatto. "Stereographic projection and static digraph for information routing in satellite constellations". In: *IAC 75th International Astronautical Congress* (2024).

[11]   E. M. Leonardi, G. De Angelis, and M. Pontani. "Guidance strategies to deploy a lunar satellite constellation from Gateway". In: *IAC 75th International Astronautical Congress* (2024).