# **ELEONORA ANDREIS**

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## **EDUCATION**

PhD in Aerospace Engineering Politecnico di Milano, Milan, Italy.

MSc in Space Engineering Politecnico di Milano, Milan, Italy.

• Final thesis: "Deep Space Autonomous Navigation for Stand Alone CubeSats"

Erasmus program Université de Liège, Liège, Belgio.

**BSc** in Aerospace Engineering Politecnico di Milano, Milan, Italy.

Diploma di Liceo Scientifico Liceo Scientifico Primo Levi, Verona, Italy.

#### WORKING EXPERIENCE

PhD in Aerospace Engineering

Politecnico di Milano, Milan, Italy.

- Member of the DART group supervised by prof. Francesco Topputo.
- Member of the *EXTREMA* (Engineering Extremely Rare Events in Astrodynamics for deep-space Missions in Autonomy) project, winner of the ERC grant in 2019.
- Research topics: autonomous optical navigation for interplanetary CubeSats, image processing algorithms for unresolved objects, orbit determination techniques suitable for miniaturized probes.

#### **Tutoring activities**

Politecnico di Milano, Milan, Italy.

- Preparation of theoretical and practical lectures in preparation of the exam of "Fluidodinamica".
- Lessons were provided online via Teams.

#### EXTRACURRICULA ACTIVITIES

Participation at the ESA Concurrent Engineering Challenge 11/11/2019 15/11/2019 Politecnico di Milano, Milan, Italy.

- In the challenge my role consisted in the design of the thermal subsystem of a spacecraft for a scientific mission to Enceladus.
- I played the role of team leader for part of the challenge during which I coordinated the activities of the group and I presented to the commission the results of the progress meetings.

## **Skyward Experimental Rocketry Membership**

Politecnico di Milano, Milan, Italy

September 2018 - December 2020

February 2021 - Ongoing

Final Mark: 110 cum laude/110

February 2019 - June 2019

October 2015 - September 2018 Final Mark: 106/110

> September 2010 - July 2015 Final Mark: 97/100

February 2021 - Ongoing

March 2020 - July 2020

October 2017 December 2018

• Skyward is a Student Association of the Politecnico di Milano. In particular, I joined the "Integration" subsystem in the Structures department. My role involved designing the components with SolidWorks and integrating them in the Rocksanne 2-alpha rocket.

Participation at ESO Astronomy Winter Camp	26/12/201401/01/2015
Astronomy Observatory of the Aosta Valley, Saint Barthlemy, Italy	
Federazione Italiana Di Atletica Leggera Membership	2007 - 2016

Verona - Milan

• From 2014 to 2016, I have practiced athletics at a professional level, specializing in long jump and participating in national and international competitions.

# TECHNICAL AND TRANSVERSAL SKILLS

Modelling and Analysis	Matlab, Solidedge, Solidwork, Autodesk Inventor, Siemens Nx,
	Simcenter, OCDT, Simulink, 3DOptix
Software & Instruments	MS Office, Latex, Overleaf, Raspberry-Pi
Languages	Italian, native speaker
	English, advanced speaker [TOEIC $(910/990)$ (2018), OLS (C1) (2019)]

# PERSONAL TRAITS

✓ I am very curious about different fields of scientific research, mainly astronomy and geology

 ${f O}$  Thanks to the practice of competitive sports, I have developed an important organizational capacity and ability to work under pressure

The Erasmus and academic experience led me to cultivate the skills necessary to create a serene and efficient group working environment

**X** I love travelling and in my free time I enjoy reading historical and fantasy novels

#### ACADEMIC PRIZE

• Winner of the scholarship for sporting and scholastic merits offered by the Politecnico di Milano2015.