Internship

Deorbiting sail for CubeSat

Laboratory: P' PMM, ENSMA - Poitiers

Supersivors :
Yves Nadot, Yannick Pannier

Financial support: 500€/month

Final design, fabrication and test of a deorbiting sail for CubeSat

The ICARE objective is to develop deorbiting sail for CubeSat application. We are at the stage where a first prototype is developed, the initial proof of concept is validated but now we need to improve the system and add function to secure the sail before the final integration for a flight expected in 2025. The system need to be light, resistant to cyclic thermal loading and vibrations. The whole project is conducted in the framework of the NAASC (Nouvelle Aquitaine Academic Space Center) supporting the control of the whole 3 units CubeSat. The ICARE sail is integrated in the top of the CubeSat.

The internship proposed will be organised as follow :

- Analysis and tests of the first prototype: defaults and qualities
- Integration of all constraints of the whole Cubesat (electrical, geometrical, mass, …)
- Search for additional function to secure the sail before deorbiting
- Proposition, prototyping and validation of a design
- Fabrication and test of the whole sail including the new function to secure the sail
- Participation to the weekly meeting of the whole CubeSat projet

Further questions:

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