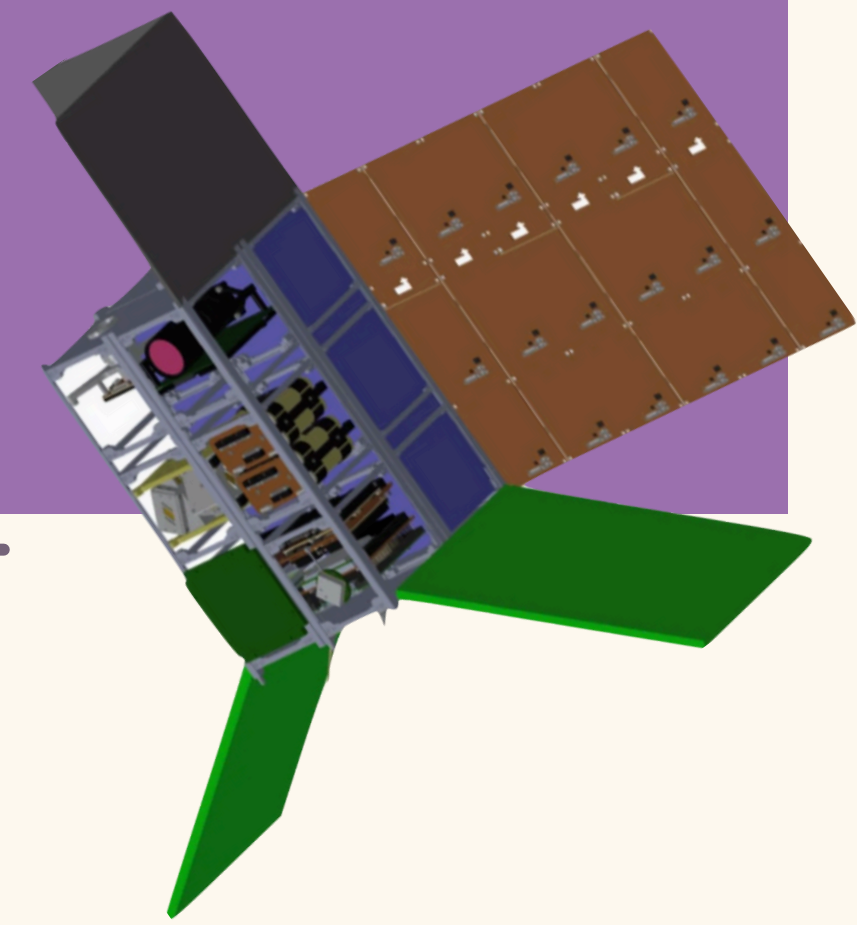


CHIPS: CubeSat with High Performance for Skyhopper



1 Concept

Space mission currently proposed as a 16U cubesat, with a 8U payload consisting of a near-infrared telescope (15 cm equivalent aperture)

CHIPS aims to develop, build and launch the **first cryogenic infrared space telescope for astrophysics on a CubeSat**

2 Capabilities

CHIPS near-infrared telescope will enable **cutting-edge astrophysical investigations** that have been traditionally restricted to larger and substantially more expensive missions

CHIPS will be able to perform **fast and frequent slew manoeuvres** to re-orient the payload in different regions of the sky on short notice, reacting on triggers of astrophysical transients

3 Objectives

1) Identify **Gamma-Ray Burst** afterglows originating all the way back to the edge of the observable Universe, and to use them as beacons to study the first galaxies

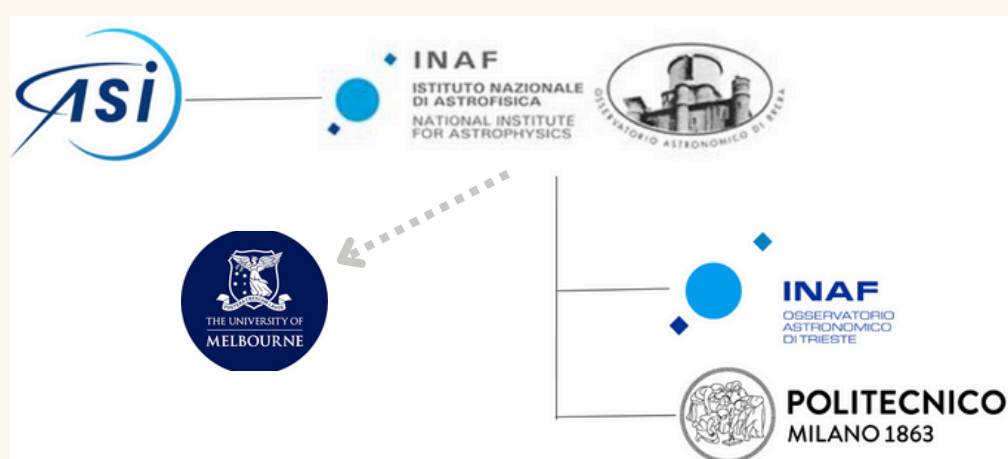
2) Identify and study **Kilonovae** associated to the merger of binary systems of compact objects containing at least a neutron star, triggered by gravitational wave interferometers, joining the newly opened field of multi-messenger astrophysics

3) Characterize **Near-Earth Asteroids**

4) Discover potentially habitable Earth-size **exoplanets** transiting in front of nearby cool stars

4 The Team

CHIPS team includes people from the INAF and POLIMI institutes + signed MoU with the University of Melbourne



5 Status of the project

The project is currently undergoing the final steps for the Preliminary Requirements Review (end of Phase A), funded by the Italian Space Agency within the ALCOR program, specifically dedicated to small satellites



For any additional info do not hesitate to contact us:

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