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LICIACube: the witness of the DART impact

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ABSTRACT

On September 26, the NASA DART mission made its impact on Dimorphos, the small satellite of the binary asteroid Didymos (Rivkin et al. 2021). It was the first planetary defense space mission to demonstrate the applicability of the kinetic impactor technique for the deflection of an asteroid.

An exceptional witness was LICIACube (Light Italian Cubesat for Imaging of Asteroids) the Italian nanosatellite which was launched together with DART on November 24, 2021 and, after a 9.5 months cruise, was released 15 days before impact, with the aim of witnessing the event and acquiring scientific images of the effects produced (Dotto et al. 2021, 2023).

LICIACube is an ASI project, the first one operating in deep space.

The project will be presented and discussed together with the in situ observation strategy and the first obtained results.

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