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*The SSDC role in the LICIA Cube mission,
witnessing the first planetary defence
impact.*



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(ASI Project Scientist)

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ABSTRACT

On September 26th, 2022, the NASA DART spacecraft impacted the asteroid Dimorphos, the secondary of the binary system of Didymos, achieving the first Planetary Defense experiment. In the close vicinity of the system the ASI LICIA Cube cubesat, released from DART itself 15 days before the impact, acquired 400 images, uniquely witnessing the event, allowing to study in detail the surfaces of the two asteroids and the ejecta plume generated by the impact. The very first scientific results of this combined mission have been recently published, demonstrating the success in applying the kinetic impactor technique to deviate potentially hazardous asteroids, but the scientific team, that for LICIA Cube is led by INAF, is continuing to analyze the images to better constrain the details of the post-impact phase. In this talk the first results and the perspectives will be illustrated.

BIOGRAFIA

Angelo Zinzi, graduated in Physics at the University of Naples "Federico II", earned a PhD in Physics at the University of L'Aquila. He has always focused his research interests on planetary sciences, working in several fields, studying the surface of planets, their atmospheres and asteroidal threats. Since 2012 he is working at the Space Science Data Center of ASI (ASI-SSDC), with a tight focus on data management, which led him to develop the scientific webtool MATISSE (<https://tools.ssdsc.asi.it/Matisse>). He is currently the ASI Project Scientist for LICIA Cube.