The ASPIICS Coronagraph Aboard the PROBA-3 Mission Andrei Zhukov Royal Observatory of Belgium Oral

PROBA-3 is the next ESA mission in the PROBA line of small technology demonstration satellites that was launched on 5 December 2024. It is currently in the commissioning phase. PROBA-3 is a mission dedicated to the in-flight demonstration of precise formation flying techniques and technologies. The PROBA-3 mission will place two small satellites in a highly elliptical orbit around the Earth. The two satellites will fly in a precise formation, producing a very long baseline solar coronagraph called ASPIICS (Association of Spacecraft for Polarimetric and Imaging Investigation of the Corona of the Sun). One spacecraft carries the optical telescope, and the second spacecraft carries the external occulter of the coronagraph. The inter-satellite distance of around 144 m will allow observing the inner corona close to the solar limb with very low straylight. PROBA-3 is also a Mission of Opportunity in the ESA Science Programme. The scientific objectives of ASPIICS will be described, and synergies with other space missions (PUNCH, Solar Orbiter, Aditya-L1, Parker Solar Probe...) will be discussed.

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