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PROBA-3, A FORMATION FLYING SPACECRAFT IMPLEMENTING A GIANT CORONAGRAPH

Abstract

PROBA-3 is a space technology demonstration mission of the European Space Agency (ESA) devoted to precise formation flying. Precise formation flying will allow the two spacecraft flying with a fixed relative geometry to implement a giant structure-less instrument, in the case of PROBA-3 a giant coronagraph. The two satellites will fly at a distance of about 150 meters during apogee of the High-Elliptical orbit with a relative position and attitude accuracy of the order of a few millimeters. The coronagraph, ASPIICS (Association of Spacecraft for Polarimetric and Imaging Investigation of the Corona of the Sun), aims to observe the solar corona from 1.08 to 3.0 solar radii in natural and polarized light and in some dedicated narrow passbands. The presentation will describe the mission scenario, give an overview of the two spacecraft implementing the coronagraph, and discuss the target scientific performance parameters.