



Contribution ID: 294

Type: Talk

Solar Orbiter is ready to start Nominal Mission Phase. More about the when, how and who?

Friday, 10 September 2021 09:30 (15 minutes)

Solar Orbiter got launched in February 2020 into an elliptical orbit around the Sun. Its mission is to perform unprecedented close-up observations of the Sun, provide the first images of the solar polar regions, and investigate the Sun-Earth connection.

The spacecraft carries 10 state-of-the-art instruments composed of Remote Sensing telescopes imaging the Sun in high-resolution and In-Situ sensors measuring the solar wind and magnetic fields in the vicinity of the orbiter.

All instruments were successfully commissioned and then characterised further during the ongoing Cruise Phase. At the end of November 2021, the mission will fly by the Earth for the last time, to reach its initial operational orbit with perihelia as close as 0.28 AU from the Sun, well inside the orbit of Mercury. The spacecraft's unique orbit and the composition of its scientific payload make it very complementary to the existing fleet of solar observatories and heliospheric probes.

On the other hand, both orbit and payload also impose unique constraints on how scientific operations can be conducted. These operations involve long- to very short-term planning in carefully arranged steps, which have much more in common with planetary-encounter missions than preceding heliophysics missions.

In this presentation, we explain the details of how science observations are planned, coordinated and conducted, often very far from Earth, and what plans are made for the first year in the Nominal Mission Phase. We also focus on the high value of coordinated observations with other missions and ground observatories, and how you can get involved.

Student poster?

Do you want to be considered for a student poster prize?

Primary author: DE GROOF, Anik (ESA/ESAC)

Co-authors: Dr WALSH, Andrew (ESA); Dr WILLIAMS, David (ESA); ZOUGANELIS, Yannis (European Space Agency); MÜLLER, Daniel (ESA)

Presenter: DE GROOF, Anik (ESA/ESAC)

Session Classification: Plenary 7

Track Classification: Session 5 - Solar-Terrestrial Relations, Solar Wind, Space Weather and Space Climate