



## **Solar Orbiter - Exploring the Sun-Heliosphere Connection**

Ioannis Zouganelis (1), Daniel Mueller (1), Chris St. Cyr (2), and Holly R. Gilbert (2)

(1) European Space Agency, (2) Goddard Space Flight Center, NASA

Solar Orbiter, the first mission of ESA's Cosmic Vision 2015-2025 programme, promises to deliver groundbreaking science with previously unavailable observational capabilities provided by a suite of in-situ and remote-sensing instruments in a unique orbit. The mission will address the central question of heliophysics: How does the Sun create and control the heliosphere? The heliosphere represents a uniquely accessible domain of space, where fundamental physical processes common to solar, astrophysical and laboratory plasmas can be studied under conditions impossible to reproduce on Earth and unfeasible to observe from astronomical distances. In this talk, we highlight the scientific goals of Solar Orbiter, address the synergy between this joint ESA/NASA mission and other new space- and ground-based observatories, and present the mission's development status.