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## The SOLAR-C mission

*Wednesday, 24 January 2024 16:00 (20 minutes)*

SOLAR-C is the next JAXA-led solar physics mission, scheduled to be launched in mid 2028. The main mission payload is EUVST (EUV High-Throughput Spectroscopic Telescope), an EUV imaging spectrometer with slit-jaw imaging system whose science goal is to understand how underlying physical processes, acting on small scales, lead to the formation of the outer solar atmosphere and the solar wind, and how the solar atmosphere becomes unstable, releasing the energy that drives solar flares and eruptions. The mission payload is complemented by the EUV Solar Spectral Irradiance Monitor (SoSpIM) whose main goal is to determine the flare-related variability of solar irradiance, which impacts the Earth's thermosphere and the mesosphere.

The EUVST instrument, crucial for achieving the mission scientific goals, is designed to simultaneously probe the solar atmosphere from the chromosphere to the corona with a spatial resolution as low as 0.4" and a temporal cadence as high as 1 s.

The Italian contribution to the mission consists in science support and in providing the slit assembly, a critical subsystem of the instrument, which also feeds the imaging system providing context to the spectroscopic observation. In this talk, I will summarise the status of the mission and provide further details on the Italian contribution.

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