



Physical Research Laboratory, Ahmedabad

Astronomy & Astrophysics Division

Seminar

Title : Understanding the origin of the solar wind with Solar Orbiter, DKIST and Aditya-L1

Speaker : Dr. Giulio Del Zanna (University of Cambridge, UK)

Date : 30.01.2020 (Thursday)

Time : 16:00 Hrs

Venue : Seminar Room # 113/114 (Thaltej Campus)

Abstract

One of the main science questions in solar physics is how and where the solar wind is originating and accelerates. Together with Parker's Solar Probe, The main upcoming ESA solar mission, Solar Orbiter, is tasked to address this science question. I will briefly describe the suite of remote-sensing instruments (in particular the EUI imager, the PHI magnetic imager, the SPICE spectrometer and the METIS coronagraph) built to support the in-situ ones, to help locating the source regions of the solar wind. I will then briefly describe the DKIST near-infrared (NIR) coronagraph. DKIST is the first large-scale solar telescope providing unprecedented observations of near-infrared forbidden lines in the outer corona, to measure magnetic fields, line widths, densities etc. Together with the Proba-3 and the VELC coronagraph, on board Aditya-L1, the first major Indian mission to study the Sun, they will provide important information about the outer corona, in synergy with the Solar Orbiter observations. I will describe the complexities and advantages in using the NIR lines to measure densities, chemical abundances and temperatures.

Tea/Coffee at 15:30 hrs.

All are welcome