

## **KORTES experiment – EUV & SXR imaging&spectroscopy of the solar corona aboard International Space Station**

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A new space borne experiment KORTES for the observations of the solar corona is being developed in Lebedev Physical Institute RAS (Moscow) and Space Research Centre PAS (Wrocław).

KORTES is a complex of EUV and soft X-Ray imagers and spectrographs, which will be placed aboard ISS on a 2-axis pointing platform. The launch is scheduled on 2018.

The main channels of KORTES are:

- 3 EUV telescopes for the 195, 304 and 584 Å ranges
- 3 EUV full-Sun spectroheliographs for the 170-210, 240-290 and 290-330 Å ranges
- 3 soft X-ray instruments for the 0.5-15 keV range, consisting of a pinhole imager, a polarimeter and a high-cadence X-ray spectrometer.

Among the main scientific task of the experiment is the investigation of solar flares, including determination of physical conditions in flaring plasmas (i.e. emission measure, electron temperature and density, turbulent velocities, Doppler shifts, chemical composition), and their relation with AR activity, CMEs, etc. The wide set of different spectroscopic information combined with simultaneous telescopic data will make possible such an investigation.

Lebedev Physical Institute is a PI of the experiment, and is responsible for the development of major part of instrumentation, including EUV channels, on-board electronics. The SXR channels will be provided by SRC PAS.

In the talk scientific tasks and technical details of the instrumentation will be given.