
Observation of the prominence eruptions and CME during the Interhelioprobe solar mission

Sergey Bogachev^{*1}, Sergey Kuzin , and Sergey Shestov

¹Lebedev Physical Institute of Russian Academy of Sciences – Lebedev Physical Institute of Russian Academy of Science, Leninskij prospekt 53, Moscow 119991, Russia, Russia

Abstract

The Interhelioprobe (IHP) is a perspective space solar mission developed by the Russian Space Agency together with the Russian Academy of Sciences. The mission aims to provide long-term remote observations of the Sun and in-situ measurements of the heliospheric magnetic fields and plasma from the out-of-ecliptic heliocentric orbit with the perihelion of about 60 solar radii. The Interhelioprobe spacecraft is equipped with an ensemble of imaging instruments at least two of which are specially dedicated for observations of solar eruptive phenomena and CME. The first one is a white-field coronagraph named "Oka" which will observe the outer solar corona from the distance of 2 to 10 from the Sun's center. The second one is a white-field heliospheric imager "Heliosphera" with the field of view of 10 – 30. We describe in detail both these instruments and present our scientific program for observation of CME and eruptive phenomena during the IHP mission.

Keywords: Interhelioprobe, CME, eruptive phenomena, white, field coronagraph, heliospheric imager

*Speaker