Japan Geoscience Union Meeting 2015
(May 24th - 28th at Makuhari, Chiba, Japan)

PPS01-P10 Room:Convention Hall Time:May 26 18:15-19:30

Coordinated observation of Io plasma torus using Hisaki/EXCEED and gourd-based telescopes

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EXCEED is an EUV spectrograph onboard an earth-orbiting space telescope, SPRINT-A(Hisaki). One of the primal mission goal of Hisaki/EXCEED is to reveal radial transport of mass and energy in the Jovian magnetosphere. An intense campaign observations of Jovian aurora and Io plasma torus were made using Hisaki/EXCEED and ground-based telescopes from December 2014 through February 2015. We will present results from [SII] 671.6/673.1nm observation of Io plasma torus using a 60-cm telescope at the Haleakala observatory feeding to a monochromatic imager.

The monochromatic imager consists of a coronagraph and a narrow-band filter (FWHM=0.9nm). The coronagraph has an occulting mask and a Lyot stop to reduce contamination by diffraction from Jupiter. Field-of-view, 8 arc minutes, is wide enough to cover both sides of the plasma torus. A platescale and integration time are 1arcsecond/pixel and 20 minutes respectively. We could get 280 images from the observation during December 2014 through January 2015.

Based on a preliminary analysis of the Haleakala 60-cm, we have found variability of dawn-dusk shift of plasma torus which is believed to be related to dawn-dusk asymmetry in EUV brightness as well as sudden brightening of plasma torus. Latest result will be presented at the meeting.