

CONTINUOUS MONITORING OF JUPITER'S AURORA AND IO PLASMA TORUS WITH THE HISAKI SATELLITE: RECENT RESULTS AND FUTURE COORDINATION WITH JUNO

T. Kimura[†], G. Murakami[‡], Y. Yamazaki[†], F. Tsuchiya[§], K. Yoshioka[¶],
C. Tao^{||}, H. Kita[‡], S. V. Badman^{**}, M. Fujimoto[†],
and the Hisaki Science Team

Abstract

The Hisaki satellite is the first space telescope that is dedicated to observations of our solar system bodies. Hisaki has been continuously monitoring the atmosphere and magnetosphere of the solar system bodies with the extreme ultraviolet (EUV) spectroscopic EXCEED since the launch in September 2013. Dynamics on timescales from 10 s to minutes to a few years were discovered in the atmosphere and magnetosphere by the continuous monitoring, especially for Jupiter's aurora and the Io plasma torus. Large joint observing campaigns for Jupiter by Hisaki in coordination with the Hubble Space Telescope (HST), Juno spacecraft, and other facilities have been made from 2014 to the present. The results of the campaigns and future coordination with Juno are presented in this talk.

[†] Tamagawa High Energy Astrophysics Laboratory, RIKEN Nishina Center for Accelerator-Based Science, Tokyo, Japan

[‡] Institute of Space and Astronautical Science (ISAS), JAXA, Sagamihara City, Japan

[§] Tohoku University, Sendai, Japan

[¶] University of Tokyo, Tokyo, Japan

^{||} National Institute of Information and Communications Technology (NICT), Japan

^{**} Lancaster University, Lancaster, UK

