

## Scientific feasibility study for planetary auroral observations in the LOPYUTA mission

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We made a feasibility study for observations of planetary auroras with the next generation planetary ultraviolet (UV) space telescope LOPYUTA. Based on current dataset from the Hubble Space Telescope and the Hisaki satellite, simulations for the LOPYUTA spectroscopy and imaging were made for Jupiter's auroral emissions. It was confirmed that under the current design of LOPYUTA telescope, both of the spectroscopy and imaging have enough sensitivity for detections of Jupiter's auroral emissions. Now we are narrowing down the imaging filters specifications and planning the observation modes. In this presentation, the current status of the above feasibility studies are presented.

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