

## **Mission Plan and Development Status of Solar Power Sail Deep-Space Explorer**

# Yuichi Tsuda[1]; Junichiro Kawaguchi[2]

[1] ISAS; [2] JAXA/ISAS

<http://www.jaxa.jp>

Institute of Space and Astronautical Science, JAXA is now planning the “Solar Power Sail” mission for the launch in 2010s. Solar Power Sail combines the solar-photon propulsion with the solar-electric propulsion to fly toward Jupiter and Trojan asteroids.

This Solar Power Sail is an engineering demonstrator which deploys very thin light-weight 50m diameter sail and demonstrates a variety of key technologies requisite for future outer solar system exploration. The spacecraft is composed of a mother spacecraft (Jupiter flyby and Trojan asteroids flyby), Jupiter polar orbiter and Jupiter entry probe.

This spacecraft performs the cruise infrared astronomy observation together with the ecliptic dust detection, and also makes magnetospheric observation in the polar region of Jupiter and visits Trojan asteroids.

In the presentation, the mission plan and the technological development status of the solar power sail mission will be introduced.