

## Science and objectives of the JUICE-Japan team: interdisciplinary researches toward understanding the origin of the Jovian system and habitability of the Galilean moons

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Jupiter ICy moons Explorer, JUICE is ESA's first L-class mission and will perform detailed observations of Jupiter and three of its large icy moons, Europa, Ganymede, and Callisto, using science payload consisting of 10 state-of-the-art instruments and one experiment that uses the spacecraft telecommunication. The Japanese science community has been participating into the development of four instruments participating (PEP, RPWI, GALA, and SWI) and into the science teams of six instruments (the above four plus JANUS and J-MAG). The JUICE mission will provide a unique and the first opportunity for Japanese planetary science community to directly be involved in outer Solar System explorations through providing the science hardwares.

This paper will discuss science objectives of the Japanese team for JUICE, including the objectives of each instrument team. In addition, we will discuss our interdisciplinary researches toward understanding the origin of the Jovian system and habitability within Europa based on JUICE's observations.

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