

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

\*関根 康人<sup>1</sup>、斎藤 義文<sup>2</sup>、浅村 和史<sup>2</sup>、塩谷 圭吾<sup>2</sup>、春山 純一<sup>2</sup>、笠羽 康正<sup>3</sup>、笠井 康子<sup>4</sup>、松岡 彩子<sup>2</sup>、東原 和行<sup>2</sup>、JUICE-Japan team

\*Yasuhito Sekine<sup>1</sup>, Yoshifumi Saito<sup>2</sup>, Kazushi Asamura<sup>2</sup>, Keigo Enya<sup>2</sup>, Junichi Haruyama<sup>2</sup>, Yasumasa Kasaba<sup>3</sup>, YASUKO KASAI<sup>4</sup>, Ayako Matsuoka<sup>2</sup>, Kazuyuki Tohara<sup>2</sup>, team JUICE-Japan

1. 東京大学、2. 宇宙航空研究開発機構、3. 東北大学、4. 情報通信研究機構

1. University of Tokyo, 2. JAXA, 3. Tohoku University, 4. NICT

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 (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 hardware.

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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