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La missione JUICE dell'ESA

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The discovery of four large moons orbiting around Jupiter by Galileo Galilei about four hundred years ago spurred the Copernican Revolution and forever changed our view of the Solar System and universe. Today, Jupiter is seen as the archetype for gas planets in our Solar System as well as a paradigm for the numerous giant planets known to orbit other stars. In many respects, and in all their complexities, Jupiter and its diverse satellites form a mini-Solar System.

The JUPiter ICy moons Explorer (JUICE) mission was selected in 2012 as the first L-class mission (L1) within the framework of the ESA “Cosmic Vision” Programme. It has been launched in April 2023 and its arrival at Jupiter is planned in July 2031. JUICE will be the first ESA-led mission to Jupiter and its moons, and the first mission to enter orbit around a natural satellite of a giant planet.

The focus of JUICE is to characterize the conditions that may have led to the emergence of habitable environments in Jupiter’s icy Galilean satellites Ganymede, Europa and Callisto, known to harbor subsurface oceans of liquid water.

By investigating this system, and thereby unravelling the history of its evolution, from initial formation of the planet to the development of its satellite system, JUICE will enable a general understanding of how gas giant planets and their satellite systems form and evolve and of how our Solar System works.

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