

The PLATO 2.0 Mission

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Abstract

PLATO 2.0 is the M class mission selected by ESA for its M3 launch slot in the framework of the Cosmic Vision 2015-2025 program. The main goals of PLATO 2.0 are the detection of terrestrial exoplanets in the habitable zone of solar-type stars and the characterization of their bulk properties needed to determine their habitability. Moreover, PLATO 2.0 will be key in understanding the formation, architecture, and evolution of planetary systems thanks to a thorough inventory of the physical properties of thousands of rocky, icy, and gaseous giant planets. We will illustrate the PLATO 2.0 science goals, how the instrument is conceived to fulfil the science requirements, and how the project is organized to implement the instrument, plan the observations, and exploit the resulting data.