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Abstract

**The Jupiter System Observer: A Mission to study Jupiter, its Moons
and Magnetospheric Environment**

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and the JSO Science Definition Team**

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In early 2007, NASA's Science Mission Directorate formed four Science Definition Teams (SDTs) to formulate science goals and objectives in anticipation of initiation of a flagship-class mission to the outer solar system (Europa, Jupiter system, Titan and Enceladus). The Jupiter System Observer (JSO) mission concept emphasizes overall Jupiter system science: 1) Jupiter and its atmosphere, 2) the geology and geophysics of the Galilean satellites (Io, Europa, Ganymede and Callisto), 3) the magnetosphere environment—both Jupiter's and that at Ganymede and 4) interactions within the system. Focusing on the unique geology, presence of an internal magnetic field and evidence for a subsurface ocean, the final mission destination will be in Ganymede orbit. As conceived, JSO will return a wealth of data to provide significant advancement in understanding the foundations of planetary systems.

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