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Orbital Dynamics (2) (9)

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**Abstract**

Orbits described by satellites and space probes serve the task that the latter are called upon to carry out. In many cases those orbits' design is simple, but sometimes it requires tackling extraordinary challenges. This is the case of the orbits described by the probes intended for the solar system exploration, in particular for planetary exploration, which, in the absence of adequate launch thrust, sufficient to get to those celestial bodies far from the Sun, are forced to perform a series of planets' flybys, like cosmic marbles. This turns into long transfers and enormous distances, which entail survivability issues for on board equipment and difficulties in communications, problems which we contribute overcoming by exploiting Astrodynamics in its broadest sense.