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Sommario/riassunto

"Space dynamics is one of the most important topics in aerospace engineering. It governs the satellites launched into an Earth orbit as well as lunar and interplanetary space exploration missions. The successful launching and operation of all spacecraft requires a good knowledge of space dynamics. Space dynamics can be divided into two broad categories: (i) orbital mechanics, and (ii) attitude dynamics. Orbital mechanics is a study of the translational motion of a spacecraft under the gravitational influence of either one or several large bodies. Attitude dynamics is the study of rotational motion of a rigid spacecraft about its own centre of mass, and includes both kinematical and kinetic description in terms of Euler angles, quaternion, or Rodrigues/modified Rodrigues parameters, and the angular velocity components."--