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Note generali	Proceedings of the 2006 Aussois Winter School "Open Problems of Celestial Mechanics".
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	An Overview on the Nekhoroshev Theorem -- Diffusion in Hamiltonian Quasi-Integrable Systems -- Weakly Dissipative Systems in Celestial Mechanics -- Connectence and Stability of Dynamical Systems -- Chaotic Diffusion of Asteroids -- An Overview of the Rotations of Planets in the Solar System -- On the Stability of Extra-Solar Planetary Systems -- Origin Theories for the Eccentricities of Extrasolar Planets -- Methods for the Study of the Dynamics of the Oort Cloud Comets I: Modelling the Stellar Perturbations -- Methods for the Study of the Dynamics of the Oort Cloud Comets II: Modelling the Galactic Tide -- Special Features of Galactic Dynamics -- On the Difficulty to Foresee Solar Cycles: A Non-Deterministic Approach.
Sommario/riassunto	This set of lectures collects surveys of open problems in celestial dynamics and dynamical astronomy applied to solar, extra-solar and galactic systems. Emphasis is on questions of stability of planetary systems. In particular the discovery and thus the possibility to study many new extra-solar planetary systems have spurred new developments in the field and enabled the testing and enlargement of the domains of validity of theoretical predictions through the Nekhoroshev theorem.

