

1. Record Nr.	UNINA9910449904503321
Autore	Rauschenbakh Boris V
Titolo	Essential spaceflight dynamics and magnetospherics [[electronic resource] /] / by Boris V. Rauschenbakh, Michael Yu. Ovchinnikov, Susan McKenna-Lawlor
Pubbl/distr/stampa	Dordrecht ; ; Boston, : Kluwer Academic Publishers, c2003
ISBN	0-306-48027-1
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Descrizione fisica	1 online resource (XIV, 397 p.)
Collana	Space technology library ; ; 15
Altri autori (Persone)	OvchinnikovM. IU McKenna-LawlorSusan M. P
Disciplina	629.4/11
Soggetti	Astrodynamics Magnetosphere Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references (p. 299-301) and index.
Nota di contenuto	Unperturbed Orbital Motion. Two-Body Problem -- Qualitative Analysis of the Properties of Orbits -- Perturbed Motion -- Gravispheres -- Equations of Motion in Terms of Osculating Elements -- Braking of a SC in the Earth's Atmosphere -- Terrestrial Nonsphericity and SC Motion -- SC Motion in the Field of Two Attracting Centers -- Elements of SC Manoeuvring Theory -- Interplanetary Trajectory Corrections -- Rendezvous Manoeuvring -- Gravity-Assist Manoeuvre -- About Orbit Determination Using Measured Data -- to Attitude Control -- SC Affected by a Gravity-Gradient Torque -- SC Motion in a Circular Orbit -- SC Motion in an Elliptical Orbit -- A Spinning Axisymmetric SC in Circular Orbit -- Equilibrium of a Gyrostat -- SC Motion Affected by an Aerodynamic Torque -- SC Motion in the Geomagnetic Field -- Motion of a SC under Damping.
Sommario/riassunto	Essential Spaceflight Dynamics and Magnetospherics describes, in the first instance, some of the key aspects of celestial mechanics and spaceflight dynamics. It begins with classical two and three body problems illustrative of the aesthetic aspects of applying analytical methods of investigation to celestial mechanics. Then, osculating orbital elements are introduced as well as analysis techniques sufficient

to evaluate the influence of various disturbing forces on spacecraft. Next a theory of manoeuvres is outlined and the methodology of making interplanetary trajectory corrections. Ideas involving various approaches to orbital element determinations using measured data are also considered. The forces applied to a spacecraft can result in the development of torques that influence attitude motion and the effects of the most important of these are described in terms of equilibrium positions, periodic motions, steady-state and transient motions. Also considered is the problem of attitude control of a spacecraft using active and/or passive methods of orientation and stabilization. In addition, a more advanced treatment of the development of attitude control systems is provided.

2. Record Nr.	UNINA9910777423203321
Titolo	Ocean drilling research : an Arctic perspective // Polar Research Board, Commission on Geosciences, Environment, and Resources, National Research Council
Pubbl/distr/stampa	Washington, D.C. : , : National Academy Press, , 1999
Descrizione fisica	1 online resource (vi, 9 pages)
Disciplina	627.7
Soggetti	Ocean bottom - Arctic Ocean Underwater drilling - Arctic Ocean
Lingua di pubblicazione	Inglese
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Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	""Ocean Drilling Research: An Arctic Perspective""; ""Copyright""; ""ACKNOWLEDGEMENTS""; ""OCEAN DRILLING RESEARCH: AN ARCTIC PERSPECTIVE""; ""CONTEXT""; ""THE IMPORTANCE OF DRILLING IN THE ARCTIC""; ""TECHNICAL CHALLENGES""; ""CONCLUSION""; ""REFERENCES""