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| 1. Record Nr. | UNINA9910457957103321 |
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| Titolo | Multiple scales theory and aerospace applications [[electronic resource] /] / Rudrapatna V. Ramnath |
| Pubbl/distr/stampa | Reston, Va., : American Institute of Aeronautics and Astronautics, Inc., c2010 |
| ISBN | 1-60086-764-2 1-60086-763-4 |
| Descrizione fisica | 1 online resource (614 p.) |
| Collana | AIAA education series |
| Disciplina | 629.10285 |
| Soggetti | Aerospace engineering - Data processing Aeronautics - Systems engineering Differentiable dynamical systems Scaling laws (Statistical physics) Electronic books. |
| Lingua di pubblicazione | Inglese |
| Formato | Materiale a stampa |
| Livello bibliografico | Monografia |
| Note generali | Description based upon print version of record. |
| Nota di bibliografia | Includes bibliographical references and index. |
| Nota di contenuto | pt. I. General theory. Introduction ; Asymptotics and approximations ; Asymptotology and dynamic analysis ; Perturbation theory and nonuniformities ; Multiple time scales ; Foundation and generalization -- pt. II. Systems applications. Linear time-invariant systems ; Linear time-varying systems ; Slowly varying linear systems ; Examples ; Stability and parameter sensitivity ; Control of slowly varying systems ; Turning points ; Error analysis -- pt. III. Vehicle mathematical model. Rigid body equations of motion ; Reference frames and coordinate transformations -- pt. IV. Atmospheric flight. Conventional aircraft dynamics ; Reentry dynamics ; Hypervelocity flight dynamics ; Stability analysis of hypervelocity aircraft ; Flying qualities through variable conditions ; Parameter sensitivity of high-speed aircraft ; Transition dynamics of VTOL aircraft ; VTOL aircraft control design ; Boost control of launch vehicles ; Aircraft wing rock in high-angle-of-attack flight ; A general theory of aircraft wing rock -- pt. V. Space flight. Equatorial orbit perturbation ; Satellite attitude prediction ; Attitude control of spinning satellites ; Attitude control of dual-spin satellites ; |

Geomagnetic attitude control design of satellites ; Deformable reflector stability ; Active control of membrane mirrors ; Nonlinear deformable reflector ; Heliogyro spacecraft ; Future directions -- Appendix A : Extension of the n th-derivative operator -- Appendix B : Earth's gravity field -- Appendix C : Gravity gradient torque -- Appendix D : Linear periodic systems and Floquet's solution -- Appendix E : Elliptic integrals and elliptic functions.
