

1. Record Nr.	UNINA9910132336603321
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Titolo	Low-energy lunar trajectory design // Jeffrey S. Parker and Rodney L. Anderson
Pubbl/distr/stampa	Hoboken, New Jersey : , : Wiley, , 2014 ©2014
ISBN	1-118-85531-0 1-118-85506-X 1-118-85497-7
Descrizione fisica	1 online resource (437 p.)
Collana	JPL Deep-Space Communications and Navigation Series
Disciplina	629.4/11
Soggetti	Lunar probes - Trajectories Space flight to the moon - Cost control
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Cover; Title Page; Copyright Page; CONTENTS; Foreword; Preface; Acknowledgments; Authors; 1 Introduction and Executive Summary; 1.1 Purpose; 1.2 Organization; 1.3 Executive Summary; 1.3.1 Direct, Conventional Transfers; 1.3.2 Low-Energy Transfers; 1.3.3 Summary: Low-Energy Transfers to Lunar Libration Orbits; 1.3.4 Summary: Low-Energy Transfers to Low Lunar Orbits; 1.3.5 Summary: Low-Energy Transfers to the Lunar Surface; 1.4 Background; 1.5 The Lunar Transfer Problem; 1.6 Historical Missions; 1.6.1 Missions Implementing Direct Lunar Transfers 1.6.2 Low-Energy Missions to the Sun-Earth Lagrange Points 1.6.3 Missions Implementing Low-Energy Lunar Transfers; 1.7 Low-Energy Lunar Transfers; 2 Methodology; 2.1 Methodology Introduction; 2.2 Physical Data; 2.3 Time Systems; 2.3.1 Dynamical Time, ET; 2.3.2 International Atomic Time, TAI; 2.3.3 Universal Time, UT; 2.3.4 Coordinated Universal Time, UTC; 2.3.5 Lunar Time; 2.3.6 Local True Solar Time, LTST; 2.3.7 Orbit Local Solar Time, OLST; 2.4 Coordinate Frames; 2.4.1 EME2000; 2.4.2 EMO2000; 2.4.3 Principal Axis Frame; 2.4.4 IAU Frames; 2.4.5 Synodic Frames; 2.5 Models; 2.5.1 CRTBP 2.5.2 Patched Three-Body Model 2.5.3 JPL Ephemeris; 2.6 Low-Energy

Mission Design; 2.6.1 Dynamical Systems Theory; 2.6.2 Solutions to the CRTBP; 2.6.3 Poincare Maps; 2.6.4 The State Transition and Monodromy Matrices; 2.6.5 Differential Correction; 2.6.6 Constructing Periodic Orbits; 2.6.7 The Continuation Method; 2.6.8 Orbit Stability; 2.6.9 Examples of Practical Three-Body Orbits; 2.6.10 Invariant Manifolds; 2.6.11 Orbit Transfers; 2.6.12 Building Complex Orbit Chains; 2.6.13 Discussion; 2.7 Tools; 2.7.1 Numerical Integrators; 2.7.2 Optimizers; 2.7.3 Software

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Sommario/riassunto

Surveys thousands of possible trajectories that may be used to transfer spacecraft between Earth and the moon, including transfers to lunar libration orbits, low lunar orbits, and the lunar surfaceProvides information about the methods, models, and tools used to design low-energy lunar transfersIncludes discussion about the variations of these transfers from one month to the next, and the important operational aspects of implementing a low-energy lunar transferAdditional discussions address navigation, station-keeping, and spacecraft systems issues

2. Record Nr.	UNINA9910694324603321
Titolo	Extremist madrassas, ghost schools, and U.S. aid to Pakistan : are we making the grade on the 9/11 Commission report card? : hearing before the Subcommittee on National Security and Foreign Affairs of the Committee on Oversight and Government Reform, House of Representatives, One Hundred Tenth Congress, first session, May 9, 2007
Descrizione fisica	1 online resource (iii, 70 p.)
Soggetti	Education and state - Pakistan Islamic education - Pakistan Religious militants - Education - Pakistan Islamic fundamentalism - Pakistan Economic assistance, American - Pakistan
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia