

Orbital Mechanics and Astrodynamics: Techniques and Tools for Space Missions | Springer International Publishing, 2015 | 386 pages | Gerald R. Hintz | 9783319094434 | 2015

Orbital Mechanics and Astrodynamics Techniques and Tools for Space Missions Orbital Mechanics and Astrodynamics Gerald R. Hintz. Orbital Mechanics and Astrodynamics Techniques and Tools for Space Missions Gerald R. Hintz Astronautical Engineering Department University of Southern California Los Angeles, CA, USA. ISBN 978-3-319-09443-4 ISBN 978-3-319-09444-1 (eBook). In academia, this book will be used by graduate students to study Orbital Mechanics or to do research in challenging endeavors such as the safe return of humans to the moon. (See Chaps. 6 and 7.) It will also serve well as a textbook for an Orbital Mechanics course for upper-division undergraduate and other advanced undergraduate students. This textbook covers fundamental and advanced topics in orbital mechanics and astrodynamics to expose the student to the basic dynamics of space flight. The engineers and graduate students who read this class-tested text will be able to apply their knowledge to mission design and navigation of space missions. This book is ideal for graduate students in Astronautical or Aerospace Engineering and related fields of study, researchers in space industrial and governmental research and development facilities, as well as researchers in astronautics. This book also: Illustrates all key concepts with examples. Appendix B defines projects the students can perform to test and strengthen their knowledge of Astrodynamics and the techniques and tools for space missions. to the basic dynamics of space flight Orbital Mechanics and Astrodynamics: Techniques Hand Tool Essentials: Refine Your Power Tool Projects with Hand Tool Techniques. 225 Pages 2007 102.32 MB 38,584 Downloads New! Projects with Hand Tool Techniques Woodworking Popular Woodworking Editors Woodworking with Hand Tools: Tools, Techniques & Projects. advice on tool maintenance, techniques for getting the most from the tools, and projects made usin Hands-On Machine Learning with Scikit-Learn and TensorFlow: Concepts, Tools, and Techniques to Build Intelligent Systems. 564 Pages 2017 45.31 MB 96,852 Downloads New! Hands-On Machine Learning with Scikit-Learn and TensorFlow: Concepts, Tools, and Techniques A student of Orbital Mechanics and Astrodynamics can now pursue further study in related topics. Several such topics are considered at a high level in the next section, together with appropriate references for such continuing study. View. Numerous space mission cases have been studied in low and middle Earth orbits, where various types of orbital perturbations are acted on spacecraft. Consequently, several EAs are employed to solve the optimization problem. Results demonstrate the practicality of different EAs, along with comparing their convergence rates. With a unique trajectory model, EAs prove to be an efficient, reliable and versatile optimization solution, capable of being implemented in conceptual and preliminary design of spacecraft for orbital precession missions. View.