1. Record Nr. UNINA9910163986503321

Titolo	Global Gravity Field Modeling from Satellite-to-Satellite Tracking Data / / edited by Majid Naeimi, Jakob Flury
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2017
Edizione	[1st ed. 2017.]
Descrizione fisica	1 online resource (XV, 168 p. 35 illus., 25 illus. in color.)
Collana	Lecture Notes in Earth System Sciences, , 2193-8571
Disciplina	526.7
Soggetti	Geophysics Geographic information systems Environmental sciences Geophysics/Geodesy Geographical Information Systems/Cartography Math. Appl. in Environmental Science
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Parameter Estimation for Satellite Gravity Field Modeling -- Precise Orbit Determination -- The Classical Variational Approach -- The Acceleration Approach -- The Energy Balance Approach.
Sommario/riassunto	This book addresses different approaches for recovering the Earth’s gravity field using satellite-to-satellite tracking data. It gathers lectures given at the ‘Wilhelm and Else Heraeus Autumn School’ in Bad Honnef, Germany, October 4-9, 2015. The emphasis of the school was on providing a sound theoretical basis for the different gravity field recovery methods and the numerics of data analysis. The approaches covered here are the variational equations (classical approach), the acceleration approach and the energy balance approach, all of which are used for global gravity field recovery on the basis of satellite observations. The theory of parameter estimation in satellite gravimetry and concepts for orbit determination are also included. The book guides readers through a broad range of topics in satellite gravimetry, supplemented by the necessary theoretical background and numerical examples. While it provides a comprehensive overview for those

readers who are already familiar with satellite gravity data processing, it also offers an essential reference guide for graduate and undergraduate students interested in this field.