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Nota di contenuto	Part I Gravimetry and Gravity Networks -- 1. Towards the establishment of new gravity control in Poland -- 2. Testing the suitability of the A10-020 absolute gravimeter for the establishment of new gravity control in Poland -- Part II Global Gravity Field Modeling, Assessments and Applications -- 3. GOCE long-wavelength gravity field recovery from 1s-sampled kinematic orbits using the acceleration approach -- 4. Use of high performance computing for the rigorous estimation of very high degree spherical harmonic gravity field models -- 5. Time variable gravity: Contributions of GOCE satellite data to monthly and bi-monthly GRACE gravity field estimates -- 6. Application of Wavelets for Along-Track Multi-Resolution Analysis of GOCE SGG Data -- 7. Assessment of high-resolution global gravity field models and their application in quasigeoid modelling in Finland -- 8. Comparison of GOCE global gravity field models to test fields in southern Norway -- 9. Evaluation of Recent GRACE and GOCE Satellite Gravity Models and Combined Models Using GPS/Leveling and Gravity Data in China. -10. Evaluation of GOCE/GRACE derived Global Geopotential Models over Argentina with collocated GPS/Levelling observations -- 11. Evaluation of GOCE/GRACE Global Geopotential Models over Greece with

collocated GPS/Levelling observations and local gravity data -- 12. Evaluation of the GOCE-based Gravity Field Models in Turkey -- 13. A Stokesian approach for the comparative analysis of satellite gravity models and terrestrial gravity data -- Part III : Future Gravity Field Missions -- 14. New approach to estimate time variable gravity fields from high-low satellite tracking data -- 15. Status of the GRACE Follow-on Mission -- 16. Feasibility Study of a Future Satellite Gravity Mission using GEO-LEO Line-of-Sight Observations -- Part IV: Advances in Precise Local and Regional High-Resolution Geoid Modeling -- 17. GOCE data for local geoid enhancement -- 18. Investigation of gravity data requirements for a 5 mm-quasigeoid model over Sweden -- 19. Consistent combination of satellite and terrestrial gravity field observations in regional geoid modeling a case study for Austria -- 20. Modelling the influence of terraced landforms to the Earth's gravity field -- 21. Accurate Geoid Height Differences Computation from GNSS Data and Modern Astrogeodetic Observation -- 22. Improving the Swedish quasigeoid by gravity observations on the ice of Lake Vän -- 23. Geoid Model and Altitude at Mount Aconcagua Region (Argentina) from Airborne Gravity Survey -- 24. HRG2009 - New high resolution geoid model for Croatia -- 25. Validation of Regional Geoid Models for Saudi Arabia using GPS/Levelling Data and GOCE Models -- Part V : Establishment and Unification of Vertical Reference Systems -- 26. W0 estimates in the frame of the GGOS Working Group on Vertical Datum Standardisation -- 27. Realization of WHS based on the static gravity field observed by GOCE -- 28. First Results on Height System Unification in North America Using GOCE -- 29. Using GOCE to straighten and sew European local geoids: preliminary study and first results -- 30. Combination of geometric and orthometric heights in the presence of geoid and quasi-geoid models -- 31. Contribution of Tide Gauges for the Determination of W0 in Canada -- 31. Estimation of the reference geopotential value for the local vertical datum of continental Greece using EGM08 and GPS/leveling data -- 32. Tidal Systems and Reductions for Improvement of the Bulgarian National Vertical Reference System -- Part VI : Gravity Field and Mass Transport Modeling -- 33. Consistent Combination of Gravity Field, Altimetry and Hydrographic Data -- 34. Local hydrological effects on gravity at Metsähovi, Finland: implications for comparing observations by the superconducting gravimeter with global hydrological models and with GRACE -- 35. Global groundwater cycles and extreme events responses observed by satellite gravimetry -- Part VII : Modeling and Inversion of Gravity-SolidEarth Coupling -- 36. Sensitivity of GOCE gravity gradients to crustal thickness and density variations – Case study for the Northeast Atlantic Region -- 37. Detecting the elevated crust to mantle section in the Kohistan-Ladakh Arc, Himalaya, from GOCE observations -- 38. Daniele Tenze, Carla Braitenberg, Eva Sincich, Patrizia Mariani -- 39. A grip on geological units with GOCE -- 40 -- Basement structure of the Santos Basin from Gravity data -- Part VIII : Gravity Field of Planetary Bodies -- 41. Observing the gravity field of different planets and moons by space-borne techniques: predictions by fast error propagation tools -- 42. Sensitivity of simulated LRO tracking data to the lunar gravity field.

Sommario/riassunto

This volume includes a selection of papers presented at the IAG international symposium "Gravity, Geoid and Height Systems 2012" (GGHS2012), which was organized by IAG Commission 2 "Gravity Field" with the assistance of the International Gravity Field Service (IGFS) and GGOS Theme 1 "Unified Global Height System". The book summarizes the latest results on gravimetry and gravity networks, global gravity

field modeling and applications, future gravity field missions. It provides a detailed compilation on advances in precise local and regional high-resolution geoid modeling, the establishment and unification of vertical reference systems, contributions to gravity field and mass transport modeling as well as articles on the gravity field of planetary bodies.
