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Nota di contenuto	Part I: Terrestrial, Shipboard and Airborne Gravimetry -- Measurement of Absolute Gravity and Deflection of the Vertical at Sea -- Multi-scenario Evaluation of the Direct Method in Strapdown Airborne and Shipborne Gravimetry -- Improving Gravity Estimation Accuracy for the GT-2A Airborne Gravimeter Using Spline-Based Gravity Models -- Gravimetric Studies in the Sea of Japan -- About Identification of Instrument Error Parameters for a Gravity Gradiometer -- Numerical Model of Moving-Base Rotating Accelerometer Gravity Gradiometer -- New Algorithm for Gravity Vector Estimation from Airborne Data Using Spherical Scaling Functions -- Results of Astro-measurements of the Deflection of Vertical Using the New Observation Technique -- Observations with gPhone Gravimeter in Moscow -- Part II: Absolute Gravimetry -- On Uncertainties of Laser Interferometric Absolute Ballistic Gravimeters due to Magnetic Effects in the Free-Fall Gravity Measurements -- Evaluation of Systematic Errors in the Compact Absolute Gravimeter TAG-1 for Network Monitoring of Volcanic Activities -- Design of New Launch and Interferometer Systems for the

IMGC-02 Absolute Gravimeter -- Twelve Years of High Frequency Absolute Gravity Measurements at the UK's Space Geodesy Facility: Systematic Signals and Comparison with SLR Heights -- Part III: Relative Gravimetry and Applications -- Studying the Evolution of Resolution Capabilities and Approximation Accuracy of Global Models by Spectral Characteristics -- The Role of Non-tidal Atmospheric Loading in the Task of Gravity Field Estimation by Inter-satellite Measurements -- Formation of Self-consistent Navigational Gravity Maps of Local Areas and Joint Assessment of Their Navigation Quality -- Methods of Bistatic GNSS-radio Altimetry for Determining Height Profile of the Ocean and Their Experimental Verification -- Absolute and Relative Gravity Measurements at Volcanoes: Current State and New Developments Under the NEWTON-g Project -- The Effect of Measurement Preprocessing in the Gravity-Aided Navigation -- Sensitivity of Algorithms for Estimating the Gravity Disturbance Vector to Its Model Uncertainty.

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#### Sommario/riassunto

This open access volume contains the proceedings of the 5th Symposium on Terrestrial Gravimetry: Static and Mobile Measurements (TG-SMM2019) held in St. Petersburg, Russia, October 1 – 4, 2019. The symposium was hosted by the State Research Center of the Russian Federation Concern CSRI Elektropribor, JSC and was attended by 75 participants from 15 different countries. 32 oral and 20 poster contributions were presented in four different topical sessions: Terrestrial, shipboard and airborne gravimetry, Absolute gravimetry, Relative gravimetry, gravity networks and applications of gravimetry and Cold atom and superconducting gravimeters, gravitational experiments.

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