1. Record Nr. UNINA9910735588203321 Autore Freymueller Jeffrey T **Titolo** Geodesy for a Sustainable Earth [[electronic resource]]: Proceedings of the 2021 Scientific Assembly of the International Association of Geodesy, Beijing, China, June 28 - July 2, 2021 / / edited by Jeffrey T. Freymueller, Laura Sánchez Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa 2023 **ISBN** 3-031-29507-2 Edizione [1st ed. 2023.] Descrizione fisica 1 online resource (418 pages) International Association of Geodesy Symposia, , 2197-9359;; 154 Collana Altri autori (Persone) SánchezLaura Disciplina 550 Soggetti Geophysics Geotechnical engineering Geographic information systems Geotechnical Engineering and Applied Earth Sciences Geographical Information System Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto Geometric Reference Frames -- Combined IVS Contribution to the ITRF2020 -- An Experimental Combination of IGS repro3 Campaign's Orbit Products Using a Variance Component Estimation Strategy -- The Correlations of the Helmert Transformation Parameters as an Additional Auxiliary Diagnostic Tool for Terrestrial Reference Frames Quality Assessment -- Shimosato Co-Location of the SLR and GNSS Stations --Local Ties at SLR Station Riga -- Datum Problem Handling in Local Tie Surveys at Wettzell and Metsähovi -- Close Range Photogrammetry for High-Precision Reference Point Determination: A Proof of Concept at Satellite Observing System Wettzell -- Frame Accuracy of Combined EPN Weekly Coordinate Solutions -- The Atlantic Network of Geodynamic and Space Stations (RAEGE): A Spanish-Portuguese Infrastructure of Geodetic Stations -- ITRF Densification in Cyprus --Geodetic Analyses at the National Geographic Institute of Spain --

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Systems -- Can an Earth Gravitational Model Augmented by a Topographic Gravity Field Model Realize the International Height Reference System Accurately? -- Assessing Molodensky's Heights: A Rebuttal -- On the Accuracy of Geoid Heights Derived from Discrete GNSS/Levelling Data Using Kriging Interpolation -- Gravimetric Geoid Modeling by Stokes and Second Helmert's Condensation Method in Yogyakarta, Indonesia -- A Geodetic Determination of the Gravitational Potential Difference Toward a 100-km-scale Clock Frequency Comparison in a Plate Subduction Zone -- Validation of the Hellenic Gravity Network in the Frame of the ModernGravNet Project -- Global Gravity Field Modeling -- Combined Gravity Solution from SLR and GRACE/GRACE-FO -- Contribution of LARES SLR Data to Co-estimated Earth Geopotential Coefficients -- Determination and Combination of Monthly Gravity Field Time Series from Kinematic Orbits of GRACE, GRACE-FO and Swarm -- Topographic Gravity Field Modelling for Improving High-Resolution Global Gravity Field Models -- The Benefit of Accelerometers Based on Cold Atom Interferometry for Future Satellite Gravity Missions -- Kalman-Filter Based Hybridization of Classic and Cold Atom Interferometry Accelerometers for Future Satellite Gravity Missions -- Gravimetry by Nanoscale Parametric Amplifiers Driven by Radiation-Induced Dispersion Force Modulation --Earth Rotation -- On the Improvement of Combined EOP Series by Adding 24-hour VLBI Sessions to VLBI Intensives and GNSS Data --Investigating the Relationship Between Length of Day and El-Niño Using Wavelet Coherence Method -- Estimation of Earth Rotation Parameter UT1 from Lunar Laser Ranging Observations -- Surface Deformation Monitoring -- Determination of a GNSS-Based Velocity Field of the African Continent -- Vertical Land Motion at Tide Gauges Observed by GNSS: A New GFZ-TIGA Solution -- CyCLOPS: A National Integrated GNSS/InSAR Strategic Research Infrastructure for Monitoring Geohazards and Forming the Next Generation Datum of the Republic of Cyprus -- GNSS Positioning -- Dilution of Precision (DOP) Factors for Evaluating Observations to Galileo Satellites with VLBI -- On the Limits of State-of-the-Art GNSS Receivers in Frequency Transfer -- On the Effect of Antenna Calibration Errors on Geodetic Estimates: Investigation on Zero and Double Difference Approaches -- Estimation and Calibration of Codephase Center Correction Using the Empirical Mode Decomposition -- On the Potential of Image Similarity Metrics for Comparing Phase Center Corrections -- Multipath Characterization Using Ray-Tracing in Urban Trenches -- Bounding the Residual Tropospheric Error by Interval Analysis -- Precise Orbit Determination of CubeSats Using Proposed Observations Weighting Model -- Geodetic Atmospheric and Remote Sensing -- Optimal TEC Forecast Models Based on Machine Learning and Time Series Analysis Techniques - A Preliminary Study on the Ring of Fire -- Sensitivity of Shipborne GNSS Troposphere Retrieval to Processing Parameters -- Application of the Total Variation Method in Near Real-Time GNSS Tropospheric Tomography -- Comparison of the Effective Isotropic Radiated Power Parameter in CYGNSS v2.1 and v3.0 Level 1 Data and Its Impact on Soil Moisture Estimation -- Cross-Polarization Correction for Soil Moisture Retrieval Using GNSS SNR Data.

Sommario/riassunto

This open access volume contains selected papers of the 2021 Scientific Assembly of the International Association of Geodesy – IAG2021. The Assembly was hosted by the Chinese Society for Geodesy, Photogrammetry and Cartography (CSGPC) in Beijing, China from June 28 to July 2, 2021. It was a hybrid conference with in-person and online attendants. In total, the Assembly was attended by 146 in-person participants and 1,123 online participants. The theme of the

Assembly was Geodesy for a Sustainable Earth. 613 contributions (255 oral presentations and 358 poster presentations) covered all topics of the broad spectrum considered by the IAG: geodetic reference frames, Earth gravity field modelling, Earth rotation and geodynamics, positioning and applications, the Global Geodetic Observing System (GGOS), geodesy for climate research, marine geodesy, and novel sensors and quantum technology for geodesy. All published papers were peer-reviewed, and we warmly recognize the contributions and support of the Associate Editors and Reviewers.