

International Symposium on Gravity, Geoid and Height Systems GGHS2012

Venice, October 9-12, 2012



Organized by:

- IAG Commission 2
- Istituto Nazionale di Oceanografia e di Geofisica Sperimentale (OGS)
- The International Gravity Field Service (IGFS)
- GGOS Theme 1

Detailed Program of the Conference

Conference Website: <http://www.gravityfield.org/conference/>

Tuesday October 9, Afternoon

14:00

[Opening Session](#)

Greetings from the Local Organizing Committee (Iginio Marson)
The Scientific Program (Urs Marti)
Greetings from IAG, the Scientific Assembly 2013 (Hermann Drewes)
Greetings from the IGFS (Rene Forsberg)

Overview Session (Chair: U. Marti)

14:30

Absolute gravimeters set standards in metrology and geodesy (S1-239)

Leonid Vitushkin, Herbert Wilmes, Vojtech Palinkas

14:45

[GOCE Gravity Field Models – Status and Plans \(S2-080\)](#)

Thomas Gruber, Reiner Rummel, GOCE HPF Team

15:00

Status of the GRACE Follow-On Mission (S3-156)

Frank Flechtner, Mike Watkins

15:15

GOCE data for local geoid enhancement (S4-145)

Matija Herceg, Per Knudsen, Carl Christian Tscherning

15:30

Report on the activities of the working group "Vertical Datum Standardisation" (S5-053)

Laura Sanchez, Jonas Agren, Robert Cunderlík, Nadim Dayoub, Zuzana Faskova, Jianliang Huang, Karol Mikula, Philip Moore, Daniel Roman, Zdislav Sima, Viliam Vatrt., Marie Vojtiskova, Yan Ming Wang

15:45

Coffee Break

~~16:15~~

~~**Global groundwater changes and trends observed by satellite gravimetry (S6-045)**~~

~~Shuanggen Jin, Guiping Feng~~

16:30

Density structure of the crust and upper mantle of Asia. (S7-038)

Mikhail Kaban, Ward Stolk, Fred Beekman, Sierd A.P.L. Cloetingh

Session 8: Gravity Field of Planetary Bodies

(Chair: O. Baur)

16:45

[Observing the gravity field of different planets and moons by space-borne techniques \(S8-056\)](#)

Pieter Visser

17:00

[Sensitivity of simulated LRO tracking data to the lunar gravity field \(S8-170\)](#)

Andrea Maier, Oliver Baur

17:15

Comparison Analyses on the 150×150 Lunar Gravity Field Models by gravity/topography Admittance, Correlation and Precision Orbit Determination (S8-148)

Yan Jianguo

17:30

[New km-resolution gravity field models for Moon and Mars \(S8-020\)](#)

Christian Hirt, Will Featherstone, Sten Claessens, Michael Kuhn

Wednesday, October 10, Morning

Session 2: Global Gravity Field Modeling, Assessments and Applications (Part 1)

(Chair: J. Huang)

- 08:30 **Global high-resolution forward gravity modelling using the ETOPO1 1-arc-minute global relief model (S2-100)**
Michael Kuhn, Sylvain Bonvalot, Georges Balmino, Christian Hirt, Guilhem Moreaux, Franck Reinquin, N. Vales
- 08:45 ~~**Marussi Tensor, Invariants and Related Quantities of the Earth Gravity Field, represented by EGM 2008, for geo-applications (S2-023)**~~
Jaroslav Klokočník, Jan Kostecký, Jan Kalvoda, Josef Sebera, Aleš Bezděk
- 09:00 **On the downward continuation of gravitational gradients (S2-201)**
Pavel Novak, Josef Sebera, Milos Valko
- 09:15 [High-resolution global gravity field modelling by finite volume method \(S2-152\)](#)
Zuzana Minarechova, Marek Macak, Robert Cunderlik, Karol Mikula
- 09:30 [Use of high performance computing for the rigorous estimation of very high degree spherical harmonic gravity field models \(S2-197\)](#)
Jan Martin Brockmann, Lutz Roesse-Koerner, Wolf-Dieter Schuh
- 09:45 **GOCE beyond 2012: revised mission objectives and measurement altitudes (S2-058)**
Rune Floberghagen, Michael Fehringer, Christoph Steiger, the GOCE mission team
- 10:00 **Consistent modeling of GOCE gravity field models (S2-235)**
Wolf-Dieter Schuh, Jan Martin Brockmann, Boris Kargoll, Ina Krasbutter

10:15 **Coffee Break**

Session 2: Global Gravity Field Modeling, Assessments and Applications (Part 2)

(Chair: Th. Gruber)

- 10:45 [GOCE long-wavelength gravity field recovery from high-low satellite-to-satellite-tracking using the acceleration approach \(S2-206\)](#)
Tilo Reubelt, Oliver Baur, Matthias Weigelt, Matthias Roth, Nico Sneeuw
- 11:00 [Global and regional gravity field models from GOCE data \(S2-231\)](#)
Judith Schall, Annette Eicker, Jürgen Kusche
- 11:15 **On a Combined Use of GOCE Based Models and Local Segments of Terrestrial Data in Gravity Field and Geoid Modelling (S2-238)**
Petr Holota, Otakar Nesvadba
- 11:30 [Validation of ground gravity data in the Andes region with GOCE for the purpose of combined regional gravity field modelling \(S2-195\)](#)
Michael Hosse, Roland Pail, Tetyana Romanyuk, Martin Horwath, Nils Köther
- 11:45 **The use of GOCE gravity gradient data for lithospheric modeling (S2-104)**
Johannes Bouman, Jörg Ebbing, Rader Abdul Fattah, Martin Fuchs, Sophie Gradmann, Roger Haagmans, Verena Lieb, Sjef Meekes, Michael Schmidt
- 12:00 **The new combined satellite only model GOCO03s (S2-183)**
Torsten Mayer-Guerr, Daniel Rieser, Eduard Hoek, Jan Martin Brockmann, Wolf-Dieter Schuh, Ina Krasbutter, Jürgen Kusche, A. Maier, S. Krauss, Walter Hausleitner, Oliver Baur, Adrian Jaeggi, Ulrich Meyer, Lars Prange, Roland Pail, Thomas Fecher, Thomas Gruber
- 12:15 **Time variable gravity field: contributions of GOCE data to monthly GRACE gravity field solutions (S2-048)**
Moritz Rexer, Roland Pail, Thomas Fecher, Ulrich Meyer

12:30 **Lunch Break**

Wednesday, October 10, Afternoon

Session 3: Future Gravity Field Missions (Chair: R.Pail, I.Panet)

- 14:00 **Earth System Mass Transport Mission (e.motion): A Concept for future Earth Gravity Field Measurements from Space (S3-219)**
Isabelle Panet, Jakob Flury, Richard Biancale, Thomas Gruber, Johnny Johannessen, Michiel van den Broeke, Tonie van Dam, Pascal Gegout, Christopher W. Hughes, Guillaume Ramillien, Ingo Sasgen, Lucia Seoane, Maik Thomas
- 14:15 **ESA's Studies of Next Generation Gravity Mission Concepts for Observing Mass Transport in the Earth System (S3-225)**
Roger Haagmans, L. Massotti, C. Siemes, P. Silvestrin
- 14:30 **Next Generation SST Gravity Mission (S3-251)**
Manfred Langemann, Astrium GmbH, Germany
- 14:45 **A new concept of gravity field determination from space by GEO-LEO links (S3-187)**
Roland Pail, Michael Murböck, Anja Schlicht, Jakob Schlie
- 15:00 **[Optimal repeat orbits for temporal gravity recovery with future low-low SST formations \(S3-215\)](#)**
Michael Murböck, Roland Pail, Ilias Daras
- 15:15 **[Time variability from high-low SST - filling the gap between GRACE and GFO \(S3-218\)](#)**
Matthias Weigelt, Adrian Jäggi, Lars Prange, Qiang Chen, Wolfgang Keller, Nico Sneeuw
- 15:30 **[New approach to estimate time variable gravity fields from high-low satellite tracking data \(S3-177\)](#)**
Norbert Zehentner, Torsten Mayer-Guerr

15:45 Coffee Break

Session 5: Establishment and Unification of Vertical Reference Systems (Part 1)

(Chair: L. Sánchez)

- 16:15 **[Comparison between levelling, oceanographic levelling, and GPS levelling using the GOCE geoid, for tide gauges in the North Atlantic and Eastern Pacific \(S5-227\)](#)**
Philip L. Woodworth, Chris W. Hughes
- 16:30 **Height system unification in Europe (S5-021)**
Axel Rülke, Gunter Liebsch, Martina Sacher, Uwe Schäfer, Uwe Schirmer, Johannes Ihde
- 16:45 **[Tidal Systems and Corrections for Improvement of National Vertical Datum Definition of Bulgaria \(S5-120\)](#)**
Stanislava Valcheva, Iliya Yovev, Rossen Grebenitcharsky
- 17:00 **Can GOCE contribute to the height datum unification? Results in Europe and North America (S5-103)**
Babak Amjadiparvar, Christian Gerlach, Elena Rangelova, Michael G. Sideris, Thomas Fecher
- 17:15 **First results on height systems unification in North America using GOCE (S5-092)**
Michael G. Sideris, Elena Rangelova
- 17:30 **[Integration of gravity data into a seamless transnational height model for North America \(S5-075\)](#)**
Daniel Roman, Marc Véronneau, David Avalos, Xiaopeng Li, Simon Holmes, Jianliang Huang
- 17:45 **~~Gravity, Geoid and Height Systems in Albania (S5-255)~~**
~~Bilbil Nurçe, Qemal Skuka~~
- 18:00 **[Estimation of the geopotential value \$W_0\$ for the local vertical datum of continental Greece using EGM08 and GPS/leveling data \(S5-175\)](#)**
Vassilios N. Grigoriadis, Christopher Kotsakis, Ilias N. Tziavos, George S. Vergos

Thursday, October 11, Morning

Session 5: Establishment and Unification of Vertical Reference Systems (Part 2)

(Chair: D. Roman, M. Sideris)

- 08:30 [Realization of WHS based on the static gravity field observed by GOCE](#) (S5-179)
Robert Cunderlik, Karol Mikula
- 08:45 [Height System Unification with GOCE – Overview and Selected Results](#) (S5-081)
Thomas Gruber, Reiner Rummel, Johannes Ihde, Gunter Liebsch, Uwe Schäfer, Axel Rülke, Michael G. Sideris, Elena Rangelova, Philip Woodworth, Christopher W. Hughes, Christian Gerlach, Roger Haagmans
- 09:00 **Impact Assessment of GOCE for Global Height Unification Based on Error Propagation of Global Potential Model** (S5-035)
Christian Gerlach, Thomas Fecher
- 09:15 **Wo improved by EGM08 / GRACE geopotential models and Jason 1, 2 altimetry** (S5-046)
Milan Burša, Jan Kouba, Zdislav Sima, Viliam Vatrť, Marie Vojtišková
- 09:30 [Is there something like Lowest Astronomical Tide as Chart Datum?](#) (S5-027)
D.C. Slobbe, Roland Klees, M. Verlaan, L.L. Dorst, H. Gerritsen
- 09:45 **Normal Heights Determination by Modified Method** (S5-144)
Marcel Mojzes, Blazej Bucha
- 10:00 [Improved formulae for consistent combination of geometric and orthometric heights and their associated vertical velocities](#) (S5-065)
Christopher Kotsakis, I. Tsalis

10:15 **Coffee Break**

Session 4: Advances in Precise Local and Regional High-Resolution Geoid Modeling (Part 1) (Chair: R. Barzaghi)

- 10:45 [Geoid modeling in high mountains from surface, airborne and GOCE gravity](#) (S4-138)
Rene Forsberg, Arne V. Olesen, Indridi Einarsson, Niraj Manandhar, K Shresta
- 11:00 [Gravity field determination around the Japanese Antarctic station, Syowa, by combining GOCE and in-situ gravity data](#) (S4-094)
Yoichi Fukuda, Yoshifumi Nogi, Kazuya Matsuzaki
- 11:15 **Optimized Astrogravimetric Geoid for Austria** (S4-220)
Hussein Abd-Elmotaal, Norbert Kuehtreiber
- 11:30 [Accurate Geoid Height Differences Computation from GNSS Data and Modern Astrogeodetic Observations](#) (S4-106)
Evangelia Lambrou
- 11:45 [Data fusion for geoid computation – numerical tests in Texas area](#) (S4-256)
Yan Ming Wang, Xiaopeng Li
- 12:00 [Investigations of the requirements for a future 5 mm quasigeoid model over Sweden](#) (S4-163)
Jonas Ågren, Lars E Sjöberg
- 12:15 [Global Geoid GG 2012](#) (S4-093)
WenBin Shen, Jiancheng Han

12:30 **Lunch Break**

Thursday, October 11, Afternoon

Session 4: Advances in Precise Local and Regional High-Resolution Geoid Modeling (Part 2) (Chair: Y. Wang)

- 14:00 **Confirming 1 cm differential geoid accuracy - The Geoid Slope Validation Survey of 2011 (S4-085)**
Dru Smith
- 14:15 **Determination of High Precision Underground Equipotential Profiles for the Alignment of a future Linear Collider at CERN in Geneva (S4-180)**
Sébastien Guillaume, Mark Jones, Beat Bürki, Alain Geiger
- 14:30 [Consistent combination of satellite and terrestrial gravity field observations in regional geoid modeling \(S4-098\)](#)
Christian Pock, Torsten Mayer-Gürr, Norbert Kühtreiber
- 14:45 **The impact of high-resolution dynamic topography in the North Sea on the marine geoid derived from satellite radar altimeter data (S4-026)**
D.C. Slobbe, Roland Klees
- 15:00 [Impact of the oblique derivative on precise local quasigeoid modelling in mountainous regions \(S4-166\)](#)
Robert Spir, Robert Cunderlik, Karol Mikula
- 15:15 [Geoid modeling in Mexico and regional collaboration for vertical datum unification \(S4-248\)](#)
David Avalos, Raul Gomez
- 15:30 [Geoid Model and Altitude at Mount Aconcagua Region \(Argentina\) from Airborne Gravity Surveys \(S5-149\)](#)
Maria C. Pacino, Rene Forsberg, S. Miranda, A. Olessen, L. Lenzano, E. Jager, S. Cimbaro

15:45 **Coffee Break**

Session 7: Modeling and Inversion of Gravity-Solid Earth Coupling (Chair: C. Braitenberg, J. Ebbing)

- 16:15 **Lithospheric depth sensitivity of GOCE gravity gradients (S7-096)**
Jörg Ebbing, Johannes Bouman, Martin Fuchs, Sofie Gradmann, Roger Haagmans
- 16:30 [Downward continuation and transformation of GOCE-based disturbing gravity tensor \(S7-155\)](#)
Martin Pitoňák, Juraj Janák
- 16:45 [Rapid 3D inversion of gravity and gravity gradient data to test geologic hypotheses \(S7-044\)](#)
Leonardo Uieda, Valeria C. F. Barbosa
- 17:00 **Forward modeling gravity gradients of the mid-ocean ridge near Iceland (S7-245)**
Wouter van der Wal, Pavel Novák, Zdeněk Martinec, Oliver Baur
- 17:15 **Inverse gravity modeling using particle swarm optimization on model parameters (S7-151)**
Claudia Haase, Hans-Jürgen Götze, Dennis Wilken
- 17:30 **Gravity field inversion conditioned by geophysical data (S7-140)**
Eva Sincich, Carla Braitenberg
- 17:45 **Determine Geologic bodies from the inversion of GOCE observations in Africa (S7-136)**
Carla Braitenberg, Eva Sincich
- 18:00 **GOCE data evidence underplating beneath the Paraná basin (S7-135)**
P. Mariani, Carla Braitenberg, Naomi Ussami

Friday, October 12, Morning

Session 1: Gravimetry and Gravity Networks (Part 1)

(Chair: L. Vitushkin)

- 08:30 [On the accuracy of absolute gravity measurements](#) (S1-090)
Vojtech Pálinkáš, Miloš Vaľko, Jakub Kostecký
- 08:45 **Repeated comparison between two transportable ballistic absolute gravimeters in three different sites** (S1-123)
Antonio Pistorio, Emanuele Biocati, Giancarlo D'Agostino, Alessandro Germak, Filippo Greco, Claudio Origlia, Ciro Del Negro
- 09:00 **Self-attraction effect and correction on three absolute gravimeters** (S1-253)
Emanuele Biocati, Sergiy Svitlov, Alessandro Germak
- 09:15 **Periodic, environmental and long-term trends within six years of absolute gravity measurements at Herstmonceux, UK** (S1-121)
Victoria Smith, Graham Appleby, Olivier Francis, Matthew Wilkinson, Simon Williams, Marek Ziebart
- 09:30 **Vertical gradient evaluation and the reduction of absolute gravity results in Estonia** (S1-189)
Tõnis Oja, Jaakko Mäkinen, Mirjam Bilker-Koivula, L. Timmen, Olga Gitlein
- 09:45 [A new effective algorithm for interpolation of superconducting gravity measurements](#) (S1-217)
Branislav Habel, Juraj Janak
- 10:00 [Gravity Potential Determination Using Remote Optical Fiber](#) (S1-102)
WenBin Shen, Zhao Peng

10:15 Coffee Break

Session 1: Gravimetry and Gravity Networks (Part 2)

(Chair: H. Wilmes, V. Palinkas)

- 10:45 [Response functions of atom gravimeters](#) (S1-222)
Vadim Nagorny
- 11:00 [Combination of GOCE TRF Gravity Gradient Data by Collocation for Regional Gravity Field Recovery: A Case Study in France](#) (S1-036)
Hasan Yildiz, Carl Christian Tscherning, Rene Forsberg
- 11:15 **GEOHALO: Geodetic-geophysical flight mission over the Mediterranean using the "High Altitude and Long Range Research Aircraft (HALO)"** (S1-208)
Mirko Scheinert
- ~~11:30 [Integration of Absolute Gravimetry to Geodetic Networks in Brazil](#) (S1-246)
Mauro Andrade de Sousa, Rodrigo Lima Melhorato~~
- 11:45 **Renovation of the First Order Gravity Net of Finland** (S1-190)
Jaakko Mäkinen, Marcin Sękowski, Jan Kryński, Jaakko Kuokkanen, Jyri Näränen, Arttu Raja-Halli, Hannu Ruotsalainen, Heikki Virtanen
- 12:00 [Towards the establishment of new gravity control in Poland](#) (S1-125)
Jan Krynski, Marcin Barlik, Tomasz Olszak, Przemyslaw Dykowski
- 12:15 [Testing the Suitability of the A10-020 Absolute Gravimeter for the Establishment of New Gravity Control in Poland](#) (S1-126)
Przemyslaw Dykowski, Marcin Sekowski, Jan Krynski

12:30 Lunch Break

Friday, October 12, Afternoon

Session 6: Gravity Field and Mass Transport Modeling (Part 1) (Chair: S. Jin, J. Kusche)

- 14:00 [Mass loss of Greenland and Antarctica from GRACE and IceSat](#) (S6-139)
Rene Forsberg, V. Barletta, L.S. Sorensen
- 14:15 **Regional ice mass balance from GRACE and ICESat data modelled by radial basis functions** (S6-186)
Annette Eicker, Judith Schall, Anne Springer, Jürgen Kusche
- 14:30 **Estimating runoff from the assimilation of GRACE data and hydro-meteorological models** (S6-202)
Balaji Devaraju, Christof Lorenz, Mohammad Javad Tourian, Nico Sneeuw
- 14:45 [Detecting and monitoring the time-variable Greenland gravity field using reprocessed GOCE gradients](#) (S6-122)
Verena Lieb, Johannes Bouman, Martin Fuchs, Michael Schmidt
- 15:00 **Global model of the mantle based on a consistent analysis of the geoid, seismic tomography and plate velocities.** (S6-037)
Alexei G. Petrunin, Mikhail K. Kaban
- 15:15 **Testing the capabilities of the ICA, PCA and MSSA methods for signal separation in the GRACE L2 data** (S6-091)
E. Boergens, Elena Rangelova, Michael G. Sideris, Jürgen Kusche
- 15:30 **Gravity change in Finland 1962-2010 from the comparison of new absolute measurements using the A10-020 gravimeter with legacy relative measurements** (S6-212)
Jaakko Mäkinen, Marcin Sękowski, Jan Kryński, Jaakko Kuokkanen, Jyri Näränen, Arttu Raja-Halli, Hannu Ruotsalainen, Heikki Virtanen

15:45 **Coffee Break**

Session 6: Gravity Field and Mass Transport Modeling (Part 2) (Chair: S. Jin, J. Kusche)

- 16:15 **Quantifying the contribution of land water storage changes to sea level variability from GRACE and altimetry** (S6-154)
L. Jensen, Roelof Rietbroek, Jürgen Kusche
- 16:30 [Decadal variability of mass and of mass transport in the Mediterranean Sea and relation to climate change](#) (S6-241)
Luciana Fenoglio, Annarita Mariotti, Gianmaria Sannino, Benoit Meyssignac, Adriana Carillo, Maria Vittoria Struglia, Michael Rixen, Matthias Becker, Emil Stanev, Sebastian Grayek, Jürgen Kusche, Roelof Rietbroek
- 16:45 [Weighing the ocean: How a single mooring in the mid-Pacific can monitor changes in ocean mass](#) (S6-228)
Chris W. Hughes, Mark E. Tamisiea, Rory J. Bingham, Joanne Williams
- 17:00 **Wind-driven variations of the Antarctic Circumpolar Current observed by GRACE** (S6-172)
Henryk Dobslaw, Inga Bergmann-Wolf
- 17:15 [Correcting the gravity field for ocean tide influences – Quantification of the effects of minor tide interpolation and nodal corrections](#) (S6-052)
Daniel Rieser, Torsten Mayer-Guerr
- 17:30 [Continental mass change from GRACE over 2002-2011 and its impact on sea level](#) (S6-054)
Oliver Baur, Michael Kuhn, Will Featherstone

Closing Session

- 17:45 **Closing**
LOC and SOC

Posters of Session 1: Gravimetry and Gravity Networks

(on display Thursday and Friday)

- P1-01 [Towards the re-definition of the reference gravimetric network in Mexico](#) (S1-247)
David Avalos, Apolo Alvarado, Spiros Pagiatakis
- P1-02 [Quality of Microgravimetric networks' base stations](#) (S1-230)
Olga Bjelotomić, Danko Markovinović, Tomislav Bašić
- P1-03 **Characterization of the response of spring-relative gravimeters using a vibrating platform and analysis of signals acquired during paroxysmal events at Etna volcano** (S1-127)
Filippo Greco, Valerio Iafolla, Antonio Pistorio, Emiliano Fiorenza, Alessandro Bonaccorso, Danilo Ungaro, Gilda Currenti, Rosalba Napoli, Ciro Del Negro
- P1-04 **New Czech Gravity System; First results** (S1-184)
Martin Lederer, Otakar Nesvadba
- P1-05 **Non-constant vertical gradient of gravity at reference stations – observations and modelling** (S1-244)
Jaakko Kuokkanen, Jaakko Mäkinen, Jyri Näränen, Arttu Raja-Halli, Hannu Ruotsalainen, Heikki Virtanen
- P1-06 **Absolute-gravity stations in Western Dronning Maud Land, Antarctica** (S1-240)
Jaakko Mäkinen, Jyri Näränen, Markku Poutanen, Ravik Rasindra, Uttam Chand, Virendra Tiwari, Valery Lukin, Michail Anisimov, Yngve Melvaer, Gudmund Melland
- P1-07 [Evaluation of significance of the different atmospheric correction approach in Polish national gravity network](#) (S1-141)
Marcin Rajner, Tomasz Olszak
- P1-08 [Calibration of Relative Spring Gravimeters with the Use of the A10 Absolute Gravimeter](#) (S1-128)
Przemyslaw Dykowski
- ~~P1-09 **Developments of Recent Gravity Networks in Iran** (S1-115)
Ali Soltanpour, A.Saadat, F.Tavakoli, H.Cheraghi, N.Azizian, Y.Hatam~~

Posters of Session 2: Global Gravity Field Modeling, Assessments and Applications

(on display Tuesday and Wednesday)

- P2-01 [Evaluation of the latest GOCE/GRACE derived Global Geopotential Models over Argentina and contribution to W0 determination](#) (S2-050)
Claudia Tocho, George S. Vergos, Maria C. Pacino
- P2-02 [Evaluation of GOCE/GRACE Global Geopotential Models over Greece with collocated GPS/Levelling observations and local gravity data](#) (S2-176)
George S. Vergos, Vassilios N. Grigoriadis, Ilias N. Tziavos, Christopher Kotsakis
- P2-03 [Assessment of GOCE gravity models using Australian data](#) (S2-169)
Sten Claessens, Christian Hirt, Will Featherstone, Michael Filmer
- P2-04 [A Stokes approach for the comparative analysis of satellite gravity models and terrestrial gravity data](#) (S2-142)
Jianliang Huang, Marc Véronneau
- P2-05 [Application of Wavelets for Along Track Multi-Resolution Analysis of GOCE SGG Data](#) (S2-133)
Rossen Grebenitcharsky, Philip Moore
- P2-06 **Mean Dynamic Topography – Errors Contributions from the Gravity Field and the Mean Sea Surface** (S2-213)
Alexander Horvath, Roland Pail

- P2-07 **The combination of terrestrial and satellite gravity data in the context of global gravity field determination (S2-211)**
Thomas Fecher, Roland Pail, Thomas Gruber
- P2-08 **Enhanced GOCE Gradiometer Level 1b Processing – Impact on Satellite Gravity Gradiometry and Combined Gravity Field Models (S2-113)**
Claudia Stummer, Thomas Fecher, Moritz Rexer, Monika Stetter, Roland Pail
- P2-09 [A preliminary GOCE gravity field model from the direct numerical approach based on the reprocessed Satellite Gravity Gradients \(S2-083\)](#)
Jean-Charles Marty, Sean L. Bruinsma, Christoph Förste, Oleg Abrikosov
- P2-10 **A new release of EIGEN-6: The latest combined global gravity field model including LAGEOS, GRACE and GOCE data from the collaboration of GFZ Potsdam and GRGS Toulouse (S2-078)**
Christoph Förste, Sean L. Bruinsma, Jean-Charles Marty, Oleg Abrikosov, Jean-Michel Lemoine, Frank Flechtner, Christoph Dahle, Hans Neumayer, Franz Barthelmes, Georges Balmino, Richard Biancale, Rolf König
- P2-11 [Topography-based evaluation of new-generation GOCE gravity field models \(S2-019\)](#)
Christian Hirt, Michael Kuhn, Will Featherstone, Franziska Goettl
- P2-12 **First results with GOCE grids computed by the space-wise approach (S2-226)**
Andrea Gatti, Federica Migliaccio, Mirko Reguzzoni, Fernando Sansò
- P2-13 **Assessment of GOCE global gravity field models for the new geoid-based vertical datum in Canada (S2-210)**
E. Sinem Ince, Michael G. Sideris, Jianliang Huang, Marc Véronneau
- P2-14 **Evaluation of the GOCE-based gravity field models in Turkey and territories (S2-209)**
E. Sinem Ince, Bihter Erol, Michael G. Sideris
- P2-15 [The Rock-Water-Ice topographic-isostatic gravity field model up to d/o 1800 \(S2-193\)](#)
Thomas Grombein, Kurt Seitz, Bernhard Heck
- P2-16 **Assessment of high resolution global gravity field models for geoid modelling in Finland (S2-131)**
Mirjam Bilker-Koivula
- ~~P2-17 **Evaluation of new global geopotential models in Iran using terrestrial gravity and GPS-Levelling stations (S2-118)**
S. A. Saadat, Ali Soltanpour, A. Safari, F. Tavakoli~~
- P2-18 **Evaluation of the GOCE Models using GPS-Leveling and Gravity data in China (S2-114)**
Jiancheng Li, Weiping Jiang
- P2-19 [Evaluation of residuals between GOCE global gravity field models and GOCE gravity gradient observations \(S2-062\)](#)
Michal Sprlak, Christian Gerlach, Björn R. Pettersen
- P2-20 [Comparison of GOCE gravity field models to test fields in Norway \(S2-059\)](#)
Björn R. Pettersen, Michal Sprlak, Ove C. D. Omang, Dagny I. Lysaker, Marcin Sekowski, Przemyslaw Dykowski
- P2-21 [Assessment of GOCE models over Mexico and Canada \(S2-254\)](#)
Marcelo C. Santos, David Avalos, T. Peet, Jianliang Huang, Petr Vaníček
- P2-22 **Evaluation of the geopotential models with terrestrial data for the territory of Poland and Brunei (S3-134)**
Adam Lyszkowicz, Monika Birylo, Kazimierz Becek

Posters of Session 3: Future Gravity Field Missions

(on display Tuesday and Wednesday)

- P3-01 [On the capability of SWARM for estimating time-variable gravity fields and mass variations](#) (S3-204)
Tilo Reubelt, Oliver Baur, Matthias Weigelt, Nico Sneeuw
- P3-02 [Earth System Mass Transport Mission \(e.motion\): - Technological and Mission Configuration Challenges](#) (S3-158)
Thomas Gruber, Isabelle Panet, J. Johannessen, B. Doll, B. Christophe, B. Sheard

Posters of Session 4: Advances in Precise Local and Regional High-Resolution Geoid Modeling (on display Thursday and Friday)

- P4-01 [Validation of Regional Geoid Models in Saudi Arabia using GNSS/Leveling Data and GOCE Observations](#) (S4-111)
Abdulaziz Alothman, Johannes Bouman, Thomas Gruber, Verena Lieb, Mohammad Alsubaei, Ali Alomar, Martin Fuchs, Michael Schmidt
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- P4-12 [The use of overfitting criteria to build a local geoid undulation model](#) (S4-086)
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- P5-03 [Using GOCE to straighten and sew European local geoids](#) (S5-223)
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- P5-04 [Estimation of height system biases by means of EGM08 and GOCE-derived geopotential models](#) (S5-192)
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- P5-05 [Contribution of Tide Gauges to the Determination of W0 in Canada](#) (S5-147)
T. Hayden, Elena Rangelova, Michael G. Sideris, Marc Véronneau
- P5-06 **Evaluation of The Estonian Geoid Models using Data from new Precise Levelling** (S5-117)
Harli Jürgenson, Tarmo Kall, Kristina Türk
- P5-07 **New Heights for the New Zealand Vertical Datum** (S5-039)
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- P6-01 **Consistent Combination of Gravity Field, Altimetry and Hydrographic Data** (S6-198)
Silvia Becker, Wolf-Dieter Schuh, Jan Martin Brockmann
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Liangjing Zhang, Henryk Dobslaw, Frank Flechtner, Maik Thomas.
- P6-03 [Daily GRACE solutions & their role for de-aliasing](#) (S6-207)
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- P6-04 **Ice sheet changes from satellite geodesy: New GRACE solution quality, new data combination results, and remaining issues** (S6-167)
Martin Horwath, Michiel van den Broeke, Stefan Ligtenberg, Benoit Legresy, Ingo Sasgen, Jean-Benoît Tranchant, Weiyong Yi, Roland Pail,
- P6-05 [Estimates of mass variations from GOCE and GRACE data in Argentina](#) (S6-237)
Ayelen Pereira, Maria C. Pacino, L.M. Burgués
- P6-06 **Annual hydrological cycle observed with the superconducting gravimeter and with local sensors at Metsähovi, Finland** (S6-196)
Heikki Virtanen, Jaakko Mäkinen, Arttu Raja-Halli, Tero Hokkanen, Risto P. Mäkinen
- P6-07 **The GOCE observations for detecting the full extent of the crust to mantle section brought to the surface in the Kohistan Arc, Himalaya** (S6-257)
Daniele Tenze, Carla Braitenberg, Eva Sincich, Patrizia Mariani

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- P7-01 [The Chaco-Paraná Basin from GOCE and Integrated Terrestrial/Satellite Gravity Data: Unraveling a Lithosphere Discontinuity](#) (S7-150)
Gabriel Negrucci Dragone, Naomi Ussami, Carlos Alberto Moreno Chaves
- P7-02 [Updating CRUST2.0 Moho model using GOCE space-wise grids](#) (S7-229)
Mirko Reguzzoni, Daniele Sampietro, Fernando Sansò
- P7-03 **Using gravity data derived from satellite altimetry and marine geophysics in the study of basement structures in the area of the Santos Basin, SP** (S7-032)
Renata Constantino, Eder Molina
- P7-04 **2D-integrated geophysical modelling of the lithosphere in the Carpathian-Pannonian region** (S7-029)
Michal Grinč, Miroslav Bielik, Hermann Zeyen
- P7-05 **Determination of Moho Depth and Density Contrast from Gravimetric-Isostatic and CRUST2.0 Data** (S7-017)
Mohammad Bagherbandi, Lars E. Sjöberg

Posters of Session 8: Gravity Field of Planetary Bodies

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- P8-02 **Modeling of the Gravity field of the comets nuclei for heterogeneous density** (S8-063)
Julien Laurent-Varin, Jean-Charles Marty, Romain Garmier