

Programplanner:

Sunday 14/10

14:30 - 17:30 Registration

Monday 15/10

8:00 - 9:00 Registration

9:00 - 10:30 **Opening: GRACE and GOCE Status, Special Priority and NASA Programs (Chair: Rothacher)**

Welcome (10min)
by Rothacher, Markus

The DFG Special Priority Program "Mass Transport and Mass Distribution" (invited, 25 min)
by Ilk, Karl-Heinz, Karte, Johannes

Status GRACE (invited, 25 min)
by Tapley, Byron

Status GOCE (invited, 15min)
by Floberghagen, Rene

NASA Program (invited, 15 min)
by LaBrecque, John

10:30 - 10:50 Coffeebreak

10:50 - 12:50 **SDS + Session A: Latest Results of GRACE Gravity Field Modelling (Chair: Flechtner)**

Status GRACE Mission Operations (invited, 15 min)
by Beerer, Joe

Status GRACE SDS (invited, 30 min)
by Watkins, Michael

Characteristics of CSR RL04 GRACE gravity field data products
by Srinivas Bettadpur, CSR Level-2 Team

Global GRACE-only gravity models with a weekly temporal resolution at GFZ Potsdam
by C. Dahle, F. Flechtner, R. Schmidt, U. Meyer, K.-H. Neumayer, R. Koenig, J. Kusche

Alternative Gravity Field Representations: Solutions, Characteristics, and Issues

by Michael M. Watkins, Dah-Ning Yuan, Gerhard Kruizinga

ITG-Grace03s: The latest GRACE gravity field solution computed in Bonn

by Torsten Mayer-Gürr

A 3-year series of Earth's gravity field variations derived from GRACE range measurements

by Xianglin Liu, Pavel Ditmar, Qile Zhao, and Erna Oudman

12:50 - 14:10 Lunch

Session E: Oceanographic Applications (Chair: Chambers)

Time-dependent validation of ocean mass anomalies from GRACE by means of satellite altimetry and numerical models

by Henryk Dobslaw, Maik Thomas

Global Validation of GRACE Gravity Measurements by in-situ and modelled Ocean Bottom Pressure

by Carmen Böning, Andreas Macrander, Ralph Timmermann, Olaf Boebel, Jens Schröter

Closing the Globally Averaged Sea Level Budget on Seasonal to Interannual Time Scales

by Don Chambers, Josh Willis, Steve Nerem

14:10 - 16:25

Combined Ocean-Geodetic Analysis of Global and Regional Ocean Mass-, and Freshwater Transport Divergences

by D. Stammer, A. Köhl, F. Siegismund, and V. Romanova C. Böning, J. Dengg, J. Karstensen, K. Lorbacher, U. Neumann, and M. Visbeck

Basin Scale Mass Variations in the Atlantic Ocean from Altimeter, in-situ and GRACE Data

by Saskia Esselborn, Andrea Homberg, Tilo Schöne and Roland Schmidt

Integrated use of GRACE, Altimetry and Models for Assessment of Interannual Mass Variation in the Mediterranean and Black Sea

by L. Fenoglio-Marc, M. Becker, J. Kusche, R. Rietbroek, S. Grayek, E. Stanev

Tides and GRACE

by R D Ray, G D Egbert, S Y Erofeeva, S-C Han, S B Luthcke

	<p>Estimating circulation in Antartic Circumpolar Current via sequential assimilation of multi-mission altimetry data. by Sergey Skachko, Sergey Danilov, Tijana Janjic Pfander, Jens Schröter, Dmitry Sidorenko</p>
	<p>GRACE Observation Defying the Long-Held Tsunami Genesis Theory by Tony Song and Shin-Chan Han</p>
16:25 - 16:45	Coffeebreak
16:45 - 17:30	<p><u>Poster Flashlight (Chair: Bosch)</u></p> <p>Poster Flashlight A (2min/poster) by all authors</p>
17:30 - 19:00	<p><u>Posters of Session A: Latest Results of GRACE Gravity Field Modelling, Session E: Oceanographic Applications</u></p> <p>GRACE gravity field models at 10-day intervals by R. Biancale, J.-M. Lemoine, S. Bruinsma, F. Perosanz, G. Balmino, S. Bourgogne</p> <p>Gravity field modeling from GRACE and its application to geoid model improvement for Japan by Yuki Kuroishi, Frank G. R. Lemoine, David D. Rowlands</p> <p>Regional wavelet modeling over Japan by Isabelle Panet, Yuki Kuroishi, Matthias Holschneider, Olivier Jamet</p> <p>New Smoothing Function for GRACE Time-Variable Gravity Data over the Ocean by Don Chambers</p> <p>Complete variance-covariance information of gridded datasets from both gravity field models and altimetry: processing strategies by Silvia Becker, Wolf-Dieter Schuh, Martin Losch</p> <p>Bottom pressure and freshwater fluxes estimated from GRACE and ocean synthesis by V. Romanova, A. Koehl, F. Siegismund and D. Stammer</p> <p>The seasonal cycle in ocean bottom pressure from 5 years of GRACE observations by Frank Siegismund, Vanya Romanova, Armin Köhl, and Detlef Stammer</p>

Response of the Global Ocean to Greenland and Antarctic Ice Melting

by D. Stammer

Filtering of Altimetric Sea Surface Heights with local and global approaches

by Alberta Albertella, Xinxing Wang and Reiner Rummel

Assessment of errors in global ocean tide models and their impact on GRACE gravity fields

by Roman Savcenko, Wolfgang Bosch

Manifestation of long-term trends of the Thermohaline Ocean Circulation in Sea Surface Height and Ocean Bottom Pressure Fields ? Results from a Model Process Study

by Katja Lorbacher and Joachim Dengg

Oceanic mass changes in consideration of geocenter motion corrections

by A.Homberg, S.Esselborn, F.Flehtner

Oceanic Mass Transport in the Atlantic at 16°N and 26.5°N

by Uta Neumann, Johannes Karstensen, Katja Lorbacher, Martin Visbeck, Torsten Kanzow

El Nino and La Nina Signals in Sea Level, Hydrological Surface Mass Redistribution, and Degree-Two Geoid Coefficients

by Felix W. Landerer, Johann H. Jungclaus, Jochem Marotzke

A profile approach for the recovery of the mean dynamic topography

by W. Bosch and R. Savcenko

Particular Aspects of the use of GRACE, altimetry and Oceanographic Models for Assessment of seasonal and interannual Mass variation in the Mediterranean and Black Sea

by Rietbroek R., S. Grayek, J. Kusche, L. Fenoglio-Marc, M. Becker, E. Stanev

Toward high-resolution dynamical tidal modeling using HAMTIDE

by E. Taguchi, D. Stammer, W. Zahel R. Savcenko, W. Bosch

Calibration/Validation for GRACE and GOCE Data in the Mediterranean Sea

by Juan J. Martinez-Benjamin, Alexander Braun, Kai-chien K. Cheng, Ichiro Fukumori, Yuhe Tony Song, Chung-yen Kuo, Luciana Fenoglio-Marc, C.K. Shum, Lei Wang,

19:00 - 22:00 Icebreaker

Tuesday 16/10

8:30 - 10:30	<p><u>Session D: Hydrological Applications (Chair: Rodell)</u></p> <p>Enhancing the Value of GRACE for Hydrology by Matt Rodell, Ben Zaitchik, Jay Famiglietti</p> <p>GRACE Applications in Terrestrial and Global Hydrology by J. Famiglietti, T. Syed, P. Yeh and M. Rodell</p> <p>Estimating periodic components of water storage changes from GRACE and global hydrology models by Roland Schmidt, Svetozar Petrovic, Andreas Güntner, Johann Wunsch, Franz Barthelmes, Jürgen Kusche</p> <p>GRACE Mascons and Hydrological Data for the Continents: GRACE ACCESS by D. Rowlands, F. Lemoine, S. Luthcke, S. Klosko, D. Chinn, K. Akoumany, A. Griffin, M. Rodell</p> <p>DIRECT WATERBALANCE – An interdisciplinary approach towards the determination of large scale actual evapotranspiration and the evaluation of atmospheric moisture flux. by Sneeuw N, W Keller, B Devaraju, M Antoni, M Weigelt, A Bardossy, J Riegger, H Kindt, B Fersch, H Kunstmann</p> <p>Meeting challenges on the calibration of the global hydrological model WGHM with GRACE data input by S. Werth, A. Güntner, R. Schmidt, J. Kusche</p> <p>Some Hydrological and Cryospheric Applications of GRACE by John Wahr, Sean Swenson, Isabella Velicogna</p> <p>Estimating variation of groundwater storage within the Great Lakes Water Basin from GRACE, soil moisture and lake levels by J. Huang and J. Halpenny</p>
10:30 - 10:50	Coffeebreak
10:50 - 12:20	<p><u>Session D: Hydrological Applications (continued)</u></p> <p><u>Session B: Processing Methods and Background Modelling (Chair: Bettadpur)</u></p>

Observation of hydrological mass transport in the West Siberian Plain with the GRACE satellite

by Pavel Ditmar, Xianglin Liu, and Erna Oudman

Towards improved GRACE de-aliasing - first results from dynamical and residual ocean tide analysis

by Wolfgang Bosch, Detlef Stammer, Frank Flechtner, Karl-Heinz Ilk, Thorsten Mayer-Gürr, Christoph Dahle, Eifu Taguchi, Roman Savcenko

The Impact of Uncertainties of global Atmosphere Models on the Gravity Field Determination with GRACE

by L. Zenner, E. Fagiolini, F. Flechtner, T. Gruber, G. Schwarz, T. Trautmann, J. Wickert

Comparison of GRACE RL01 and RL04 Data Sets Using the Statistical Filter

by J.L. Davis, M. E. Tamisiea, P. Elosegui, J.X. Mitrovica, and E.M. Hill

Analysis and Modeling of GRACE Level 1a Accelerometer Observations

by J. Flury, S. Bettadpur, B. Tapley

Global and Regional Modes of Mass Variability in the GRACE Data

by Jean O. Dickey, Olivier de Viron and Steven L. Marcus

12:20 - 13:40

Lunch

Session B: Processing Methods and Background Modelling (continued) (Chair: Kusche)

Estimable functions from gridded earth gravity field information

by Schuh Wolf-Dieter und Silvia Becker

Multiscale Filter Methods Applied to GRACE and Hydrological Data

by Prof. Dr. Willi Freedden, Dr. Helga Nutz, Kerstin Wolf

13:40 - 15:40

Improved Accuracy of GRACE gravity solutions through Empirical Orthogonal Function Filtering of Spherical Harmonics

by Bert Wouters & Ejo Schrama

Regional gravity field modeling by space localizing basis functions

by M. Holschneider, A. Eicker, R. Schachtschneider, T. Mayer-Guerr

Geocenter Variations Derived from GRACE Data

by Z. Kang, B. Tapley, J. Chen, J. Ries, S. Bettadpur

	<p>Degree-1 Surface Mass Variations and Geocenter Motion – The Short and Long Stories by Xiaoping Wu, Hugo Schotman, and Bert Vermeersen</p> <hr/> <p>Estimating degree one variations using a combination of GRACE and ocean model output by Sean Swenson, Don Chambers, and John Wahr</p> <hr/> <p>Long-term LAGEOS data analysis with GRACE RL04 type non-tidal atmosphere and ocean mass variations by R. Koenig, F. Flechtner, M. Thomas</p>
15:40 - 16:00	Coffeebreak
16:00 - 18:00	<p><u>Session C: Combination and Validation + Poster Flashlight (Chair: Wahr)</u></p> <hr/> <p>Temporal and spatial multiscale assessment of mass transport by combination of gravity observations from GRACE and terrestrial stations by Corinna Kroner, Maiko Abe, Johannes Ihde, Gerhard Jentzsch, Jürgen Neumeyer, Markus Rothacher, Adelheid Weise, Herbert Wilmes, Hartmut Wziontek</p> <hr/> <p>Joint inversion of GPS site displacements, Ocean bottom pressure models and GRACE gravimetry data. by R. Rietbroek, J. Kusche, Ch. Dahle, R. Schmidt, F. Flechtner, J. Schröter, M.J.F. Jansen, B. Gunter</p> <hr/> <p>On the use of terrestrial data (gravity, GPS, hydrology) to validate GRACE by Caroline de Linage, Jacques Hinderer, Jean-Paul Boy and Pascal Gegout</p> <hr/> <p>Signal and Noise in Gravity Recovery and Climate Experiment (GRACE) observed surface mass variations by Ernst Schrama, Bert Wouters, David Lavalée</p> <hr/> <p>Consistency of Earth Rotation, Gravity, and Shape Measurements by Richard Gross, David Lavalée, Geoffrey Blewitt, and Peter Clarke</p> <hr/> <p>Poster Flashlight B (2min/poster) by all authors</p>
18:00 - 19:30	<p><u>Posters of Session B: Processing Methods and Background Modelling, Session C: Combination, Validation, Session D: Hydrological</u></p>

**Applications, Session F: Ice Mass Balance and GIA and Session I:
Open Session**

Comparison of polar motion excitation series from geometric space techniques, geophysical models and weekly GRACE gravity field models

by Franziska Göttl, Christoph Dahle, Roland Schmidt, Maik Thomas

The Sensitivity of Satellite Gravity Field Determination to Uncertainties in Atmospheric Models

by E. Fagiolini, L. Zenner, F. Flechtner, T. Gruber, G. Schwarz, T. Trautmann, J. Wickert

GRACE Simulation Study

by U. Meyer, R. Schmidt, F. Flechtner, B. Frommknecht

Integrated Sensor Analysis of the GRACE Mission

by Bjoern Frommknecht, Ulrich Meyer, Roland Schmidt, Frank Flechtner

Calibration of CHAMP and GRACE accelerometer data

by S Bruinsma, F. Perosanz, R. Biancale, J.-M. Lemoine, G. Balmino

Towards alternative gravity solutions from GRACE and future missions

by J. Kusche, R. Schmidt, F. Flechtner, F. Barthelmes, M. Schmidt, M. Schmeer

Monthly land waters solutions by least-square inversion of GRACE geoid data (2002-2006)

by Guillaume RAMILLIEN, Isabelle GROUSSET, William LLOVEL, Anny CAZENAVE, Frank FLECHTNER, Roland SCHMIDT

analysis of atmospheric density variations

by M. Schmeer, W. Bosch, H. Drewes

Validation of GRACE time series of continental water storage over the Amazon basin by comparison with water levels data

by Flávio VAZ DE ALMEIDA, Joécila SANTOS DA SILVA, Guillaume RAMILLIEN, Stéphane CALMANT, Denizar BLITZKOW, Anny CAZENAVE, Richard BIANCALE, Jean-Michel LEMOINE

Large-Scale Terrestrial Freshwater Discharge Estimation using GRACE

by Tajdarul H. Syed, James S. Famiglietti, Don Chambers and Matthew Rodell

Superconducting gravimeter field deployment for hydrologic investigations and connections to GRACE

by Clark R. Wilson, Hongqiu Wu, Bridget Scanlon, John M. Sharp

Signals of Extreme Weather Conditions in Central Europe from GRACE 4-D Wavelet Expansions

by Florian Seitz, Michael Schmidt, C.K. Shum, Yiqun Chen

Interannual Variations of River Water Storage from a Multiple Satellite Approach: A case study for the Rio Negro basin

by Frédéric Frappart, Fabrice Papa, James Famiglietti, Catherine Prigent, William Rossow, Frédérique Seyler

Comparison of Simulated Groundwater Storage Variations to In Situ Observations and GRACE Terrestrial Water Storage Variations

by M. Lo, P. Yeh and J. Famiglietti

Glacial Isostatic Adjustment Studies Using GRACE and Other Data

by C.K. Shum, Michael Schmidt, Hyongki Lee, Junyi Guo, Lei Wang, Georgia Fotopoulos, Chung-Yen Kuo, Patrick Wu, Alexander Braun, Wouter van der Wal, Hansheng Wang, Dahning Yuan, Michael M. Watkins

Grace data over Canada and Antarctica and post-glacial rebound

by Fleitout, Luce

Error Distribution in Local Modeling of Potential Fields From Satellite Data

by Reyko Schachtschneider, Matthias Holschneider

Contribution of glacial-isostatic adjustment to geological and geodetic observables using a 3-D viscoelastic earth model

by V. Klemann, Z. Martinec and D. Wolf

Wednesday 17/10

Session F: Ice Mass Balance and GIA (Chair: tbd)

8:30 - 10:30

Patagonia Ice Field Melting Observed by GRACE

by J.L. Chen, C.R. Wilson, B.D. Tapley, D. Blankenship

Antarctic ice mass change estimates from GRACE: Results, uncertainties, and the combination with complementary information

by Martin Horwath, Reinhard Dietrich, Philippe Huybrechts, Stefanie Linow

	<p>Recent results from GRACE in Antarctica and Greenland by Isabella velicogna and John Wahr</p> <hr/> <p>Post-glacial rebound in Fennoscandia and North America - new results from GRACE by Holger Steffen, Jürgen Müller, Heiner Denker</p> <hr/> <p>Progress towards assessing the contemporary evolution of the Greenland ice sheet by Philippe Huybrechts, Katrin Haasemann, Reinhard Dietrich, Michael Baessler</p> <hr/> <p>Change of the Greenland ice sheet from GRACE – comparison of inversion and filtering methods by Rene Forsberg, Louise Sandberg Sorensen</p> <hr/> <p>High latitude land ice mass flux from GRACE lumped harmonic masscon solutions by S. B. Luthcke , D. D. Rowlands , F. G. Lemoine , S.M. Klosko , H.J. Zwally , D. Hall , A. Arendt , J.J. McCarthy , T. A. Williams , D.S. Chinn</p> <hr/> <p>Estimation of GIA over Fennoscandia from Combined Observations by M. E. Tamisiea, J. L. Davis, and E. M. Hill</p>
10:30 - 10:50	Coffeebreak
10:50 - 12:50	<p><u>Session F: Ice Mass Balance and GIA (continued) and Session G: Dynamics and Structure of Mantle and Crust (Chair: Wolf)</u></p> <hr/> <p>The effect of GIA models on mass-balance estimates in Antarctica by R.E.M. Riva, B.C. Gunter, L.L.A. Vermeersen, R.C. Lindenbergh, and H.H.A Schotman.</p> <hr/> <p>Regional ice-mass changes and glacial-isostatic adjustment in Antarctica from GRACE by Sasgen, I., Martinec, Z. and Fleming, K.</p> <hr/> <p>Coseismic and Postseismic Deformation from the Sumatra-Andaman Earthquake Observed by GRACE by J.L. Chen, C.R. Wilson, B.D. Tapley, S.P. Grand</p> <hr/> <p>Detection of the gravity changes induced by the Sumatra-Andaman earthquake using GRACE GFZ-RL04 data by Roland Schmidt, Rongjing Wang, Jürgen Kusche</p>

Study about the great earthquakes in 2004 by regional Slepian analysis of GRACE tracking data

by Shin-Chan Han, Frederik Simons, Chen Ji

Estimation of the coseismic and postseismic signatures in the GRACE gravity fields

by Caroline de Linage, Luis Rivera, Sophie Lambotte, Jean-Paul Boy, Jacques Hinderer and Richard Biancale

An estimate of post-seismic gravity change caused by the 1960 Chile earthquake and comparison with GRACE gravity fields

by Yoshiyuki Tanaka, Volker Klemann, Kevin Fleming and Zdenek Martinec

On the detection of mantle plumes by wavelet variances of the gravity field

by Prof. Dr. Harro Schmeling, Dr. Ondrej Cadek, Prof.Dr. Willi Freeden, Matthias Klug

12:50 - 14:10

Lunch

Session G: Dynamics and Structure of Mantle and Crust (continued) and Session I: Open Session (Chair: Ilk)

Lower mantle density and temperature interpreted from thermodynamically self-consistent mantle mineralogy models

by h.-p.bunge, g. steinle-neumann, a.piazzoni

First steps towards 3D global density and dynamic model of the crust and mantle

by M.K. Kaban, A. Baranov, M. Rothacher and H. Schmeling

14:10 - 16:10

Satellite gravity and gravity gradients in lithospheric modelling and interpretation

by Ron Hackney, Hajo Götze, Sabine Schmidt Bijendra Singh, Virendra Tiwari, Kusumita Arora

Determination of the thickness of the lithosphere on a global scale

by F. Sodoudi und R. Kind

GPS radio occultation with GRACE: Recent results from GFZ

by J. Wickert, G. Michalak, T. Schmidt, G. Beyerle, C. Falck, S. Heise, C. Viehweg, F. Flechtner, L. Grunwaldt, W. Köhler, R. König, F.H. Massmann, D. Pingel, M. Rothacher, and B. Tapley

Retrieval of electron density profiles from GRACE radio occultation data

by N. Jakowski, C. Mayer, J. Wickert, S. Heise, W. Köhler

ESA's Supporting Activities Related to Mass Transport in the Earth System

by Roger Haagmans

16:10 - 16:30

Coffeebreak