2023 GRACE-FO Science Team Meeting

Oct 16-18, 2023
Boulder, CO, U.S.A.
gfostm_2023@jpl.nasa.gov
https://cpaess.ucar.edu/meetings/grace-fo-2023-science-team-meeting

Meeting Information & Schedule

Preliminary - Oct-09, 2023

Meeting dates / times & Zoom links

- Day 1: Oct-16 from 9:00am - 5:00pm (MDT)
  - *Zoom* link will be sent separately
- Day 2: Oct-17 from 9:00am - 5:00pm (MDT)
  - *Zoom* link will be sent separately
- Day 3: Oct-18 from 9:00am - 3:00pm (MDT)
  - *Zoom* link will be sent separately

Presentation upload - there are two options:

1. Filename: [*Abstract_number_LastName_gfostm_2023]*; see table below for abstract number.
2. Option 1: Email your presentation file (ppt preferred, pdf possible, Keynote discouraged) to gfostm_2023@jpl.nasa.gov (file size limit: 20 MB).
3. Option 2: If your file is larger than 20MB, please email us a file-share link (e.g., dropbox, GoogleDrive etc.) from which we can download the file.
4. Please verify point 1.

Note:

- You will be able to update your presentation file before the meeting - but the sooner you send us your final version, the better - thanks!
- Due to security restrictions, it is not possible to share files via USB sticks.

For interactive & offline discussions, we have set up a dedicated ***Slack*** channel (link will be shared before the meeting).

Questions?

To contact the scientific organizing committee:

gfo-stm@jpl.nasa.gov

To contact the local organizing committee:

jessicam@ucar.edu (Jessica Martinez)

Schedule

2023 GRACE-FO Science Team Meeting

Abstract Number	Start time [MDT]	Start time [CET]	Abstract title	Presenter
Day 1				
	09:00	17:00	Welcome & Opening Remarks	Flechtner / Tsaoussi / Landerer
1	09:05	17:05	GRACE-FO: science results, project status and plans into the extended mission phase	Landerer
2	09:30	17:30	MOS Status	Snopek
3	09:45	17:45	Science Operations Management (SOM) Report	Save
4	10:00	18:00	AOD1B RL07	Shihora
5	10:15	18:15	GRACE and GRACE-FO Level-1 Data Processing Status & Outlook	Mccullough
	10:30	18:15	Coffee Break / Posters	
6	10:45	18:45	SDS Level-2/-3 GFZ	Dahle
7	11:00	19:00	CSR Level-2/Level-3 report	Pie
8	11:15	19:15	JPL GRACE and GRACE-FO Level-2 Overview	Wiese
	11:30	19:30	SLR / TN-14 updates	Loomis
	11:35	19:35	Q & A (SOM; L1, 2, 3) / discussion	
	12:10	20:10	Lunch	
9	13:15	21:15	Progress of GRACE / GRACE-FO Level 2 processing at LUH and outlook for NGGM/MAGIC sensor system analysis	Flury

10	13:30	21:30	Updated processing strategy of GFZ's GRACE/GRACE-FO Level-2 monthly gravity field time series	Hauk
11	13:45	21:45	Preliminary GRACE RL07 re-processing result	Zhang
12	14:00	22:00	Impact of GRACE and GRACE-FO analysis techniques on spatial and temporal patterns of estimated mass change	McGirr
13	14:15	22:15	Relationship Between Geographically Correlated Gravity Field Errors and Estimated Satellite Trajectories	Childress
14	14:30	22:30	JPL's GRACE/GRACE-FO Dynamic Orbits: Open Discussion on Level 1C products	Peidou
	14:45	22:45	Coffee Break / Posters	
15	15:15	23:15	New in situ measurements of ocean bottom pressure at the North Pole since summer 2022: The first year of data and comparisons with GRACE-FO products	Peralta-Ferriz
16	15:30	23:30	Improved de-aliasing capabilities of the MAGIC double-pair constellation	Wilms
17	15:45	23:45	Data Fusion of Satellite Gravimetry and Altimetry: Improving Spatial Resolution of Antarctic Mass Change	Wiese
18	16:00	00:00	GSFC SLR solution updates and methods to assess GRACE/GRACE-FO accuracy	Loomis
19	16:15	00:15	Geocenter motion determination from SLR data, GRACE/GRACE-FO, ocean and atmospheric models	Kang
19.1	16:30	00:30	Simulation Analysis of GRACE and SLR Combination Solutions	Tucker
	16:45	00:45	Q & A (L-2/3)	
	17:15	01:15	Reception / Dinner at UCAR Center Green	

Day 2				
20	09:00	17:00	CNES/GRGS L2 and L3 GRACE/GRACE-FO products	Lemoine
21	09:15	17:15	The use of SVD in gravity field inversion at CNES/GRGS	Bourgogne
22	09:30	17:30	Residual Pattern in LRI post-fit range-rate residuals	Duwe

23	09:45	17:45	Improving Antarctic Mass Balance Estimate by Combining Satellites, GPS, and Other Data	Liang
24	10:00	18:00	Deceleration of Antarctic mass loss and contributions to sea level during the GRACE-FO era	McGirr
25	10:15	18:15	Investigating differences in estimates of ice sheet mass change from GRACE-FO and ICESat-2	Croteau
	10:30	18:30	Coffee Break / Posters	
26	10:45	18:45	Ice sheet mass balance estimates from standard GRACE/GRACE-FO product and improved estimates using Laser Ranging Interferometer (LRI) data	Velicogna
27	11:00	19:00	The Half-Century Record of Changes in the Earth's Oblateness from Satellite Laser Ranging: What is it telling us?	Nerem
28	11:15	19:15	Observing Deep Ocean Components of Overturning Circulation with GRACE and GRACE-FO	Meyer
29	11:30	19:30	GRACE and GRACE-FO Mascons for Studying Ocean Dynamics	Chambers
30	11:45	19:45	Ocean mass redistribution and Regional Sea-Level Rise in the NW Pacific Marginal Seas	Song
31	12:00	20:00	Errors in ECMWF atmospheric tides and how they affect the AOD fields	Ray
	12:15	20:15	Lunch	
32	13:30	21:30	How well do we know the seasonal cycle in ocean bottom pressure?	Ponte
33	13:45	21:45	Continuing mass change observations beyond GRACE-FO: status update on the development of the next US/German pair of satellites	Wiese
34	14:00	22:00	Optomechanical inertial sensors and some applications to Earth science	Guzman
35	14:15	22:15	Predictive Modelling and Gap Filling for GRACE Satellite Data Using LSTM Networks	Darbeheshti
36	14:30	22:30	Scale factor measurement for Mass Change Mission: Prototype development and performance	Rees
37	14:45	22:45	Reappraisal and geopotential modelling of the great	Han

			(Mw ≥8.0) earthquakes during the GRACE and GRACE Follow-On era	
	15:00	23:00	Coffee Break / Posters	
38	15:30	23:30	Estimating and Removing Major Earthquake Signals from the CSR Mascons	Bonin
39	15:45	23:45	5.7 year variation in C22/S22 from SLR and GRACE/GRACE-FO	Cheng
40	16:00	00:00	Mantle anelasticity and Level-3 equivalent water height solutions	Caron
41	16:15	00:15	Application of Cyclostationary Empirical Orthogonal Function Analysis to Satellite Record of Terrestrial Water Storage	Hamlington
42	16:30	00:30	Why Did Sub-Polar Terrestrial Water Storage Suddenly Decline in 2015?	Rodell
43	16:45	00:45	The big melt: using GRACE-FO to measure California groundwater recharge after a record-breaking winter	Reager

Day 3				
44	09:00	17:00	The monitoring of hydrological change in the Alpine region by investigating the use of satellite gravimetry data	Liu
45	09:15	17:15	A copula-supported Bayesian framework for spatial downscaling of GRACE-derived terrestrial water storage flux	Tourian
46	09:30	17:30	New Insights into the Seasonal Total Water Storage Variations in California from GRACE/GRACE-FO and GNSS	Ghobadi-Far
47	09:45	17:45	Inferring change in subsurface water by integrating GPS mass change estimates, snow models, and lake water change	Argus
48	10:00	18:00	Accelerated groundwater loss in northern Italy as observed by GRACE, well measurements, and vertical land motion	Carlson
49	10:15	18:15	Fusing global total water storage variations from GRACE and hydrological models	Werth

	10:30	18:30	Coffee Break / Posters	
50	10:50	18:50	Deciphering the Role of Total Water Storage Anomalies in Mediating Regional Flooding	Sun
51	11:05	19:05	Monitoring Artificial Reservoirs from a Distance	Sultan
52	11:20	19:20	Tropical cyclone contribution to groundwater recharge in Southern Arabia	Saleh
53	11:35	19:35	Exploiting the IGG_SLR_Hybrid Solution to Determine Gravimetric Excitations of Polar Motion	Nastula
54	11:50	19:50	Resolving the discrepancy between the seasonal oscillation of Earth's fluid envelope estimated with SLR and that assumed in GRACE	Argus
	12:10	20:10	Lunch	
55	13:20	21:20	Impacts of GIA Modeling Uncertainties on the Closure of the GMSL Budget	Bellas-Manley
56	13:45	21:45	Global ocean heat content and Earth Energy imbalance from space geodetic observations	Blazquez
57	14:00	22:00	Earth’s Energy Imbalance from the geodetic ocean perspective	Landerer
	14:15	22:15	Discussion / Summary	
	14:45	22:45	Coffee / Adjourn	