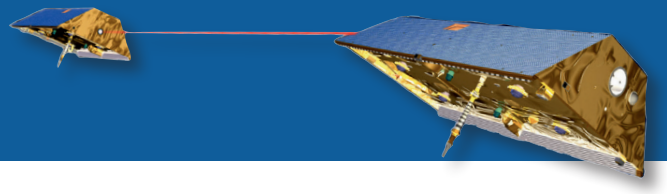


NEROGRAV

New Refined Observations of Climate Change from Spaceborne Gravity Missions

Monday	Tuesday	Wednesday	Thursday	Friday
	Background Model Ocean Tides (M. Hart-Davis)	Stochastic Modeling of GRACE/GRACE-FO Data (M. Murböck)	**Practical 3:** GRACE-FO Data Analysis: Global Analysis of EWH Grid Data	The Future: Satellite Missions with Quantum Sensors (M. Weigelt)
	Background Model AOD1B (L. Shihora)	From Level-2 Spherical Harmonics to Level-3 Grid Data (E. Börgens)		Feedback NEROGRAV School and Discussions
	Practical 1: GRACE-FO Data Analysis: Spherical Harmonic Analysis	**Practical 2:** GRACE-FO Data Analysis: Filtering/De-Striping	**Practical 4:** GRACE-FO Data Analysis: Regional Analyses	
Lunch				
The Research Group NEROGRAV and Status GRACE-FO & Future SST Missions (F. Flechtner)	Visit of Technik Museum Speyer	Mass Change of the Oceans (M. Schindelegger)	**Practicals** Feedback and Q&A	
Special Aspects of GRACE-FO Level-1 Instrument Data (V. Müller)		Surface Loading in View of the Earth´s Deformability (V. Klemann)	Gravimetry Data for Monitoring the Global Water Cycle and Comparisons with Climate Models (A. Eicker)	
From Level-1B Instrument Data to Level-2 Spherical Harmonics (R. Pail)		Mass Change of the Cryosphere (I. Sasgen)	GRACE/GRACE-FO Data for Model Assimilation and Service Applications (A. Springer)	
Dinner				
Ice Breaker		Wine Taste	SLR for Gravity Field Determination (B. Loomis)	

The spring school **„New Refined Observations of Climate Change from Spaceborne Gravity Missions“** will educate a group of 31 Ph.D. students and junior scientists in state of the art satellite gravimetry data processing (e. g. spherical harmonic analysis, filtering/de-striping, global/regional analysis of grid data) and applications of mass transport data in Earth system sciences related with the global water cycle, the oceans, or the cryosphere. A look into the future of satellite gravimetry missions completes the program.

Lectures and practicals given by key members of the Research Group **NEROGRAV** will be augmented by selected topics presented by international experts:

E. Börgens (GFZ Potsdam), **A. Eicker** (HCU Hamburg), **F. Flechtner** (TU Berlin), **M. Hart-Davis** (DGFI-TUM), **V. Klemann** (GFZ Potsdam), **B. Loomis** (JPL), **C. Mielke** (U Bonn), **V. Müller** (AEI), **M. Murböck** (TU Berlin), **R. Pail** (TU Munich), **I. Sasgen** (AWI), **M. Schindelegger** (U Bonn), **M. Schlaak** (TU Munich), **L. Shihora** (GFZ Potsdam), **A. Springer** (U Bonn), **M. Weigelt** (DLR)

GRACE FOLLOW-ON

International Spring School

10–14 March 2025

Neustadt a. d. Weinstrasse
Germany

Organized by
the DFG Research Group
NEROGRAV (FOR 2736)

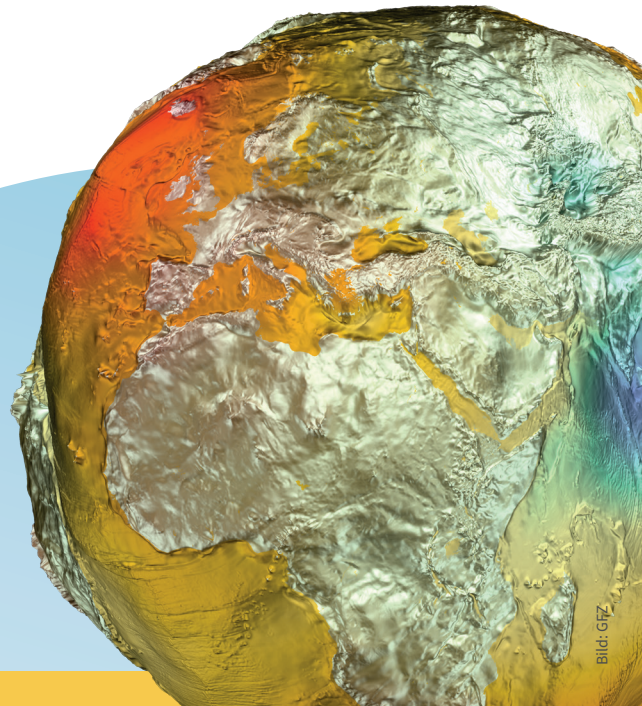


Bild: GFZ

Important Information

Prerequisite for participation:
Background in gravity field modelling or gravity field applications to be demonstrated during registration

Registration:
until **December 1, 2024** via
https://www.asg.ed.tum.de/iapg/nerograv/spring-school

Language:
The spring school will be held in English

Please bring:
Laptop with Matlab or Python software

Special events on Day 2 & 3:
Visit of Technik Museum Speyer
Wine tasting

Participation fee: 0 €

Includes:
- accommodation
- full board
- lectures and practicals
- visit of Technik Museum and wine tasting

Excludes:
- further costs (travel costs, evening drinks,…) which have to be paid by participants

Scan for registration

Foto: Kloster Neustadt

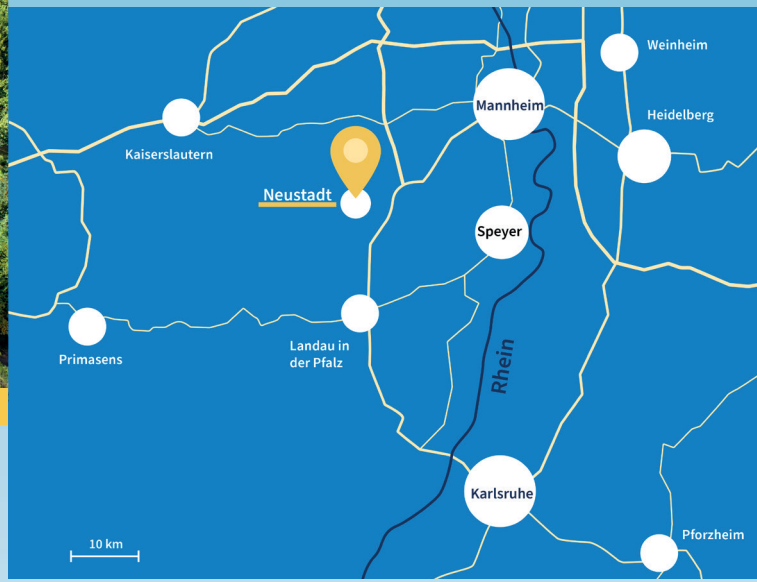
Location:

Kloster Neustadt
https://kloster-neustadt.de

at the center of the German Wine Route
(20 km SW of Mannheim)

Technik Museum Speyer:
https://speyer.technik-museum.de/en

Technik Museen Sinsheim Speyer



Directions:

By train from **Mannheim Hbf** (35 Min.)
or **Karlsruhe Hbf** (48 Min.)
followed by a ca. 20-minute walk (uphill).

GFZ Helmholtz-Zentrum Potsdam
Technische Universität Berlin
Freie Universität Berlin
Universität Bonn
Technische Universität München
Funded by DFG Deutsche Forschungsgemeinschaft German Research Foundation
hcu HafenCity Universität Hamburg