

11<sup>th</sup> Call for the  
**Friedrich-Robert-Helmert-Award**  
for the best doctoral dissertation of the year 2023/2024

With view to the extensive research activities and the resulting scientific achievements the doctoral students at the Helmholtz Centre Potsdam, GFZ German Research Centre for Geosciences play a key role in contributing to an improved understanding of System Earth and to the overall success of research work carried out at the GFZ, Germany's national research center for the solid Earth Sciences. With the **FRIEDRICH-ROBERT-HELMERT-AWARD**, the Association of Friends and Supporters of the GFZ (GFZ Friends) honours the best doctoral thesis of the year at the GFZ.

#### Award

The winner is awarded a cash prize of 1,500€ together with a certificate and a one-year honorary membership in the GFZ Friends. The prize money is

not bound to specific purposes. The award ceremony will be publically announced.

#### Call for entries

The Friedrich-Robert-Helmert-Award is awarded on an annual basis and will be conferred for the tenth time. The deadline for submission of applications is 31st May 2024. All doctoral candidates whose outstanding doctoral dissertation has been supervised by a scientist from the GFZ and is primarily based on research work carried out at the GFZ are eligible to apply. The doctoral procedure should – in the Helmert sense – be strongly application oriented and must have been completed during the previous year or before the deadline of the current year of application.

#### Application documents to be submitted

- Short summary of the doctoral thesis (max. 2 DIN-A4 pages)
- Proof of completion of the doctoral procedure (copy of the doctoral certificate)
- Short evaluation of the work by the supervisor at the GFZ
- Curriculum vitae and list of publications

#### Selection process

The decision on the award winner is made by the GFZ Friends Board on the basis of expert recommendations.

Please submit your applications by e-mail to: [gfz-friends@gfz-potsdam.de](mailto:gfz-friends@gfz-potsdam.de) to Dr. Ludwig Stroink

We wish you every success in your application for the  
**FRIEDRICH-ROBERT-HELMERT-AWARD.**



#### Helmert, Friedrich Robert

Helmert, Friedrich Robert, born 31st July 1843 in Freiberg (Saxony), died 15th June 1917 in Potsdam; from 1869-1870 observer at the Hamburg Observatory, in 1872 appointed Professor for Geodesy in Aachen, in 1887 appointed Professor for Advanced Geodesy in Berlin, from 1886-1917 Director of the Royal Prussian Geodetic Institute (Königlich Preußischen Geodätischen Institut) on the Telegrafenberg.

As a pioneer of the mathematical and physical theories of modern geodesy, Helmert rendered Potsdam the world centre for scientific geodesy. In 1876 Helmert identified the chi-square distribution (Helmert distribution), which was named after him and used in mathematical statistics, as the basis for the equilibrium calculation according to the least squares method. Helmert's 7-parameter transformation between three-dimensional Cartesian coordinate systems is applied worldwide for the distortion-free transformation of geodetic reference frames.

Furthermore, Friedrich Robert Helmert made a major contribution to the development of methods for geoid determination. The Potsdam absolute value of the Earth's gravitational pull, the so-called „Potsdam gravity value“, was the international reference value from 1909 to 1971.