



Leibniz  
Universität  
Hannover

The Institut für Erdmessung (IfE) invites applications for the position of a

## **Doctoral or PostDoctoral Researcher (m/f/d) on Quantum Inertialnavigation for Earth–Moon Navigation (Salary Scale 13 TV–L, 100 %)**

starting October 1st, 2023. The position is limited to 3 years.

### **Responsibilities and duties**

The Institut für Erdmessung is researching the use of quantum inertial navigation with partners from physics. In this project with the Technical University of Munich, the potential for improvement of spacecraft navigation for flight to the Moon and navigation on the Moon using quantum inertial navigation will be investigated simulatively. This includes the further development of inertial navigation algorithms for trajectory determination of space and lunar vehicles, the modeling of the error budget of quantum inertial sensor technology, the development of suitable filters for the consideration of quantum sensors in trajectory determination, the performance of simulation studies in MATLAB/Simulink for the flight to the moon and navigation on the moon.

We offer an attractive position in an interdisciplinary team working in a highly relevant topical field of research, which provides excellent opportunities for further professional qualification.

### **Employment conditions**

The prerequisite for employment is a completed scientific university degree in aerospace, physics (quantum sensor technology), geodesy/navigation or a related discipline. Furthermore, enjoyment of interdisciplinary, independent work and good knowledge of the English language are required. Solid experience in at least one of the areas: Development of navigation filters, space flight planning, inertial navigation or quantum sensor technology as well as a confident handling of MATLAB/Simulink.

Leibniz University Hannover considers itself a family-friendly university and therefore promotes a balance between work and family responsibilities. Part-time employment can be arranged upon request.

The university aims to promote equality between women and men. For this purpose, the university strives to reduce under-representation in areas where a certain gender is under-represented. Women are under-represented in the salary scale of the advertised position. Therefore, qualified women are encouraged to apply. Moreover, we welcome applications from qualified men. Preference will be given to equally-qualified applicants with disabilities.



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Applications have to include a CV, the full academic record (certificates, transcript of record of B.Sc. and M.Sc. or equivalent in English or German language).

Please send your application in German or English language until August 6, 2023 in electronic form (one single PDF document) to

Email: [schoen@ife.uni-hannover.de](mailto:schoen@ife.uni-hannover.de)

or alternatively via postal mail to:

**Gottfried Wilhelm Leibniz Universität Hannover**

Institut für Erdmessung

Att. Prof. Dr. Steffen Schön

Schneiderberg 50, 30167 Hannover

<http://www.uni-hannover.de/jobs>

For further information, please contact Prof. Dr.-Ing. Steffen Schön (Tel.: 0049 (0)511 762-3397, Email: [schoen@ife.uni-hannover.de](mailto:schoen@ife.uni-hannover.de)).

Information on the collection of personal data according to article 13 GDPR can be found at <https://www.uni-hannover.de/en/datenschutzhinweis-bewerbungen/>.