OeAW - Discovering the future

As a central non-university institution for science and research, the **Austrian Academy of Sciences - OeAW** has the task of **"promoting science in every respect"**. Founded in 1847 as a learned society, it now has over 760 members and around 1,800 employees dedicated to innovative basic research, interdisciplinary knowledge exchange and the dissemination of new insights. The OeAW initiates and maintains partnerships worldwide and represents Austria in international scientific organizations; it cooperates with numerous institutions in the scientific field in order to actively **shape the research landscape**.

POSTDOC (F/M/X) in satellite laser ranging

Job ID: IWF010PD125

The Space Research Institute (IWF) with about 100 employees from twenty nations, is one of the largest institutes of the Austrian Academy of Sciences (OeAW). The institute is located in the Victor Franz Hess Research Center of the OeAW in Graz and hosts eight research groups on the astrophysics of the solar system, exoplanets, and space instrumentation. The IWF also

operates a world-leading satellite laser ranging station at the Lustbühel Observatory. The Space Research Institute in Graz invites applications for a position as

POSTDOC (F/M/X) in satellite laser ranging

 (Full-time employee)

The successful candidate will join the Satellite Laser Ranging (SLR) group and will investigate data analysis techniques as an input for orbit determination, prediction and characterization of satellites and space debris. Besides SLR measurements, the group performs space debris laser ranging (SDLR) and single photon light curves (LC) measurements, characterizing sunlight reflections of space objects. The IWF can thereby rely on historical data dating back more than 20 years. Special emphasis of the candidate will be put on the utilization of machine learning, new observation technologies (e.g. MHz laser ranging), and the combined usage of data from different observation sources (data fusion). The candidate with work in close cooperation with IWF's machine learning experts.

Your Tasks

- Analysis and post-processing of SLR, SDLR and LC data as an input for orbit determination

- Utilization of machine learning approaches for novel processing techniques

- Investigation of automation approaches for post-processing, real-time observations, observation tasking

- Improvement of IWF's data catalogue, setting up an interface to existing orbit determination tools

- Exploitation of IWF data for scientific publications in peer-reviewed journals

Your Profile

- The applicant must hold a PhD in Physics, Satellite Geodesy, Computer Science or closely related fields

- Software development and programming expertise (Python and/or C++)

- Experience in data analysis of large datasets, background in machine learning

- Experience in scientific publishing

Our Offer

- A position in an innovative and internationally active environment crucial to succes

- Numerous voluntary social benefits and health insurance

- A position initially for 3 years which can be extended up to 6 years, subject to the availability of funding

- An annual gross salary of € 69.028,40 according to the collective agreement of the Austrian Academy of Sciences

Please apply online including a cover letter in addition to (1) curriculum vitae, (2) list of publications, (3) statement of the applicant's research experience (max 2 page) and a research plan with links to the institute's research (max 1 pages), (4) certificates for full academic record, and (5) two references letters no later than April 30, 2025.

Start date of the position: May 01, 2025

For inquiries, contact Dr. Michael Steindorfer.

APPLY NOW

The Austrian Academy of Sciences (OeAW) pursues a non-discriminatory employment policy and values equal opportunities, as well as diversity. Individuals from underrepresented groups are particularly encouraged to apply.

Contact

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