

Job ID: IWF127DOC224

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 the south of Graz and hosts eight research groups working on physics 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

PHD STUDENT POSITION (F/M/X)

in Space Plasma Physics

(part-time, 30h per week)

The institute invites applications for a four-years PhD Student position working on a statistical study of the global dynamics of the Earth's magnetosphere under the influence of three specific structures in the solar wind/Interplanetary Magnetic Field (IMF). The study will involve data analysis of (near-Earth) space missions and ground-based instruments. A full description of the [FWF](#)-funded project can be found [here](#). The results of this study will help with the interpretation of the ESA/CAS mission [SMILE](#), which is expected to be launched at the end of 2025. The appointment can begin November 01st 2024, but a later starting date is negotiable.

Your tasks:

- Create an event list of three specific structures in the solar wind/IMF measured at L1
- Analyse the response of the Earth's magnetosphere (statistically) when these structures interact with it using both near-Earth satellite observations (Cluster, THEMIS, MMS, etc.) and ground observations (magnetometers, radars, auroral cameras, etc.)
- Participate in IWF mission activity for SMILE
- Present your results at international conferences
- Publish three articles in peer-reviewed journals and write a PhD thesis in order to get your degree

Your profile:

- You must hold a Master's degree in physics, astrophysics, or a related field
- You should have experience in data analysis with MATLAB, IDL and/or Python
- You are willing to collaborate with international colleagues

The annual gross salary according to the collective agreement of the Austrian Academy of Sciences (OeAW) for this position is € 37.773,33.

Please send your application including (1) a curriculum vitae, (2) a statement of your background, research interests, and relevant experiences, (3) two names of references with full contact information in a single PDF file via email to martin.volwerk@oeaw.ac.at mentioning Job ID IWF127DOC124, **no later than October 01st, 2024**.

Inquiries about the position should be directed to Dr. Martin Volwerk (martin.volwerk@oeaw.ac.at). More information about [the space-plasma physics group](#) of IWF.

The PhD student will be part of the [Young Researcher Program YRP @ Graz](#), which is a collaboration between the [IWF](#), the [Graz University of Technology](#), and the [University of Graz](#). The successful candidate will benefit from the YRP@Graz network of peers and supervisors across these institutions.

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.