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**.

MBI - PhD Student (f/m/x) on detector development and readout electronics

Job ID: HEPHY120PD225

The Institute of High Energy Physics (HEPHY) of the Austrian Academy of Sciences in Vienna, Austria, performs a rich experimental particle physics research program participating in accelerator and non-accelerator-based experiments. The institute has major involvement in

CMS at CERN, the Belle II experiment at KEK, and several Dark Matter discovery experiments. A research group works on R&D of particle detectors for those experiments, as well as for its applications in medical imaging. For that, it collaborates with MedAustron, an ion cancer therapy and research center. Within this collaboration, we design and develop ultra-fast, precise, and radiation-tolerant beam position and intensity detectors and their associated readout electronics. In this context, HEPHY is offering positions as

PhD Student (F*M*D)

on detector development and readout electronics

(Part-time, 30 hours per week)

Your Tasks

- Design, simulation, and characterization (incl. irradiation tests) of semiconductor detectors, in particular silicon carbide (SiC) radiation sensors
- Assembly and characterization of SiC sensor modules for laboratory and beam tests measurements
- Development and characterization of analog and digital electronics for high dynamic range readout

Your Profile

- A Master's degree in electrical engineering or physics
- Experience in the development, characterization and/or operation of particle detectors
- Knowledge of Linux, Python and/or C++ programming languages and data analysis techniques
- General knowledge of microelectronics and FPGAs (VHDL or Verilog) is desirable
- Knowledge in radiation physics and dosimetry
- Interdisciplinary collaboration skills, working with physics, medical, and engineering teams.

Our Offer

- Interesting and diversified work embedded in a motivated team on the boundary between experimental particle physics and medical physics
- Participation in a joint development project between HEPHY/ÖAW and MedAustron, funded by the Austrian Research Promotion Agency FFG
- Attendance of international conferences and schools for advanced training

The remuneration follows the scheme of the Austrian Science Fund (FWF). The monthly gross income ("Bruttomonatsgehalt") will be at least 2.786,10 € (14 times per year). The position will be located in Vienna and is offered for a period of three years. The academic curriculum will be hosted at the Technical University of Vienna (TU Wien) since the Austrian Academy of Sciences is not entitled to issue academic degrees.

The application shall include an academic CV, a statement of research interests, and at least one recommendation letter. The deadline is set to 15 October 2025, but applications are considered until the position is filled.

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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