

The Helmholtz Institute Mainz (HIM) is an institutional cooperation of the Johannes Gutenberg-Universität Mainz and the GSI Helmholtz Centre for Heavy Ion Research GmbH in Darmstadt. It links the academic world of a university with the scientific possibilities of an internationally renowned unique large-scale accelerator center for ions. In the coming years the new international accelerator facility FAIR (**F**acility for **A**ntiproton and **I**on **R**esearch), one of the largest research projects worldwide, will be built at Darmstadt.

The HIM research section **Electromagnetic Processes (EMP)** invites outstanding candidates to apply for a

**Postdoctoral Researcher (all genders) position in Hadron Structure**  
**Reference number: 21.96-4311**

for a three-year contract starting at the earliest possible date. The position will be located in Mainz.

The position is embedded in the hadron structure work of the EMP Section in the Helmholtz Institute Mainz and the PANDA-Experiment at the future FAIR-facility. The project aims at the Measurement of the Pion transition form factor, which serves as an important input for the hadronic quantum corrections of the muon g-2-Experiment.

**Your Tasks:**

The successful candidate is expected to contribute to several of these tasks

- construction of the backward endcap (BWEC) of the PANDA-Calorimeter
- development and commissioning of the readout electronics of the BWEC including FPGA programming
- commissioning test experiments at MAMI
- measurement of the Pion transition form factor in Primakoff-kinematics in electroproduction
- software development for experiment control, data acquisition and data analysis
- supervision of Bachelor-, Master- and Doctoral students

**Requirements:**

We expect

- a PhD in experimental hadron or particle physics
- sound experience with the hardware of particle detectors, their control systems, read-out electronics and associated modern DAQ-Systems,
- sound programming experience (C/C++ and/or Python) for software related to particle detectors,
- good communication skills in English (both verbal and written).

Beneficial would be

- experience in FPGA programming,
- experience in analogue electronics,
- experience in electromagnetic calorimetry.

**We offer you:**

a fixed-term 3-year postdoc position with the salary and benefits based on the Collective Agreement for the German Public Service (TVöD-Bund), effective at GSI.

GSI and HIM encourage the professional development of women and welcome women to feel particularly addressed by the call for applications.

Severely disabled persons are given preference when equally qualified.

Information about FAIR and GSI is available at [www.gsi.de](http://www.gsi.de) and [www.fair-center.eu](http://www.fair-center.eu).

Inquiries concerning the position can be sent to Prof. Dr. Frank Maas ([F.Maas\(at\)gsi.de](mailto:F.Maas(at)gsi.de)).

If you find this position interesting, please send us your full application documents, stating the **Posting ID** (21.96-4311) by **24. September 2021** at the latest:

**[bewerbung\(at\)gsi.de](mailto:bewerbung(at)gsi.de)**

**GSI Helmholtzzentrum für Schwerionenforschung GmbH**  
**Abteilung Personal**  
**Planckstrasse 1**  
**64291 Darmstadt**  
**Germany**