

GSI Helmholtzzentrum für Schwerionenforschung in Darmstadt operates one of the leading particle accelerators for science. Currently, the new FAIR (**F**acility for **A**ntiproton and **I**on **R**esearch) one of the world's largest research projects, will be built in international cooperation. GSI and FAIR offer the opportunity to work together in this international environment with a team of employees committed to ensure each day to conduct world-class science.

For the department **FFN** we are looking for an

### **Postdoc in Hadron Physics (all genders)**

**Posting ID: 24.55-4403**

We are searching for a talented and motivated researcher to join our research group at the FAIR Forschung NRW (FFN) department and we offer a postdoc position. The selected candidate will participate in the field of hadron physics and play a key role in the development of a [recently proposed "strong-QCD" physics program](#) at FAIR. The program physics will be driven by exploiting the use of proton and deuteron beams foreseen with SIS100 in combination with the [CBM](#) experimental facility at FAIR. The person will be embedded within the international [CBM](#) collaboration and his/her activities will be dedicated to physics performance and detector optimization studies using detailed Monte Carlo simulations. Moreover, the candidate will be offered the opportunity to participate in ongoing experiments exploiting pion beams with [HADES](#) and/or to take part in the analysis of previously-taken data with either proton or pion beams.

The candidate will be based at [GSI Helmholtzzentrum für Schwerionenforschung](#) in Darmstadt. This institute operates one of the leading particle accelerators for science. In the next few years, the new [FAIR \(Facility for Antiproton and Ion Research\)](#), one of the world's largest research projects, will be built in international cooperation.

#### **Your tasks:**

- Further development of the proposed 30 GeV/c proton-proton physics program at CBM
- Detailed Monte Carlo studies of the expected performance for individual measurements of this physics program
- Participation in writing reports and proposals for this physics program
- Evaluation of data from the HADES experiment
- Presentation of the results in national and international meetings
- Disseminate world-class research via publications and conference presentations

#### **Your profile:**

- PhD in the field of experimental nuclear, hadron, or heavy-ion physics
- Experience in the operation of detectors in large-scale experiments
- Proficiency in coding/software (C/C++, Python) and in large-scale data analysis
- Outstanding analytic skills
- Excellent communication skills and able to work both in a team and independently
- Ability to (co)supervise (under)graduate students
- Proficient at organizing and writing scientific documents describing the work

**Our Offer:**

- International team located at the host lab
- Membership in the CBM collaboration
- Flexible working hours and various opportunities to reconcile work and private life
- Promoting professional development through participation in national and international conferences and through various training programs

**We offer** a diverse and interesting workplace in a dynamic and well-equipped research environment. The position is limited to 3 years. The salary is based on the German civil service employees (Tarifvertrag für den öffentlichen Dienst - TVöD (Bund)).

GSI supports the vocational development of women. Therefore, women are especially encouraged to apply for the position.

Severely Handicapped persons will be preferentially considered when equally qualified.

For further information about the position, please contact Johan Messchendorp ([J.Messchendorp@gsi.de](mailto:J.Messchendorp@gsi.de)).

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).

If you find this position interesting, please send your full application documents, including the desired salary, with information of your earliest possible starting date with the above **posting number 24.55-4403 17.05.2024 at the latest**

via the online portal on our job site:

[Online-Bewerbungsportal](#)

**GSI Helmholtzzentrum für Schwerionenforschung GmbH  
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**Grading depending on qualification is possible up to E13.**