

PhD and Postdoc Positions at GSI-FFN

The experimental nuclear physics institute [IKP-1](#), originated at the [Forschungszentrum in Jülich \(FZJ\)](#), has established a new department at the [Helmholtz center GSI](#) in Darmstadt (GSI-FFN) with an academic chair at the [University of Bochum \(RUB\)](#). We are searching for young and talented researchers to join the team at GSI-FFN and we offer a PhD and a Postdoc position. The selected candidates will participate in the experimental field of (strange) baryon spectroscopy and embedded within international collaborations ([PANDA](#), [HADES](#), [KL@GlueX](#)) developing and operating state-of-the-art experimental equipment and data analysis tools.

For both positions, 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.

Postdoctoral researcher

Job description:

We offer a position for a postdoc for a period of 2 years. The selected candidate will be involved in the operation of ongoing experiments with HADES at GSI and in the analysis of harvest data in the context of the baryon spectroscopy program. The person will lead the development of high-level analysis tools to extract physics observables of interest with possible spin-off applications towards future experiments at JLAB and FAIR depending on the interest of the person.

We are seeking a highly motivated researcher

- who holds, or shortly expects to obtain, a PhD in the field of experimental nuclear, hadron, or particle physics,
- with experience in the operation of detectors in large-scale experiments,
- with proficiency in coding/software developments (C/C++, Python) and in large-scale data analysis,
- with outstanding analytic skills,
- with excellent communication skills and able to work both in a team and independently,
- who is available for the (co)supervision of graduate students,
- who is proficient at organizing and writing scientific documents describing the work.

Employment conditions: *[to be added: standard text from GSI]*

Interested individuals can send their application, including a CV, statement of interest, and a list of three references, to [mailto:bewerbung\(at\)gsi.de](mailto:bewerbung(at)gsi.de), the **latest by 31.10.2021**. In your submission, provide the reference number *[xxxx]*.

For further details about the job offer, please contact Dr. Johan Messchendorp (j.messchendorp@gsi.de) and Prof. Jim Ritman (j.ritman@gsi.de).

PhD student

Job description:

We offer a PhD position associated with the university of Bochum in the field of experimental hadron physics. The selected candidate will be working at GSI and taking part in the international PANDA collaboration and he/she will be involved in the phase-zero program of PANDA@HADES. The PhD project will be oriented towards the application of machine learning methods in particle tracking and identification for the baryon spectroscopy program. The person will carry out a physics study to search for and analyze the properties of excited hyperons and their radiative and hadronic transitions.

We are seeking a highly motivated junior researcher

- who has a completed M.S. degree in physics preferably in the field of nuclear, hadron or particle physics,
- who has a profound interest in data mining and machine learning techniques,
- with experiences in the development of algorithms using C/C++, or Python,
- with proven analytic skills,
- who is keen and willing to work in a competitive international environment,
- with oral and written proficiency in English,
- who is motivated to organize and write scientific documents describing the work.

Employment conditions: *[to be added standard text from GSI, scale E13/1, 65% salary, involved in HGS-HIRE graduate school]*

Interested individuals can send their application including a CV, a list of followed courses including grades, and two recommendation letters to [mailto:bewerbung\(at\)gsi.de](mailto:bewerbung(at)gsi.de), the **latest by 30.09.2021**. In your submission, provide the reference number [xxxx].

For further details about the job offer, please contact Dr. Johan Messchendorp (j.messchendorp@gsi.de) and Prof. Jim Ritman (j.ritman@gsi.de).