

Max-Planck-Institut für Plasmaphysik



MAX-PLANCK-INSTITUT
FÜR PLASMAPHYSIK

The Max Planck Institute for Plasma Physics as an institute of the Max Planck Society for the Advancement of Science (registered association) is one of the leading centres for fusion research and is engaged in developing the physical foundations for a future fusion power plant. The institute is affiliated to the European Fusion Programme.

Postdoc (m/f/d) for pellet injector

City: Greifswald; Starting date (earliest): At the earliest possible; Duration: 2 years;
Remuneration: EG13 TVöD Bund; Reference number: gw25/016; Closing date: 20/04/25

Working field

The Max-Planck-Institute for Plasma Physics in Greifswald offers within the Stellarator Heating and Optimization division (E3) a position for a PostDoc (m/f/d) to operate the pellet injector and improve its performance, and to develop and conduct experimental pellet programs on W7-X.

The Institute is a world-renowned laboratory conducting pioneering research in the field of magnetic fusion science, being the home of the Wendelstein 7-X stellarator. Our international research team focuses on plasma physics and engineering to advance sustainable energy solutions through controlled fusion reactions. One of the research objectives is the safe operation of high power fusion devices. A reactor relevant process is the fueling of the burning plasma with hydrogen isotopes in the form of frozen hydrogen ice pellets. At W7-X, a pellet injector is available to investigate the pellet injection and sub-subsequent particle distribution within a fusion relevant plasma. The observation of pellet ablation and plasma transport with appropriate diagnostic means, as well as the understanding of the physical processes during the material distribution are essential for the development of a fusion reactor.

Your tasks:

- Operate and improve the pellet injector on W7-X
- Write/maintain safety and quality relevant documentations + specifications
- Conduct a scientific project within the framework of a large experiment
- Develop and realize particle fuelling and transport experiments
- Evaluate the experimental data and publish them
- Supervision of internship/bachelor/master students

Requirements

- PhD in the field of experimental physics
- Knowledge/skills in vacuum and cryogenic physics

- Fundamental knowledge in plasma physics
- Very good command of written and spoken English
- Independent-level German knowledge (min. level B2)
- Ability to cope with, and understand complex physics scenario
- Ability to work constructively in a big international team

What we offer

- An interesting job at one of the largest research institutes for fusion research
- Flexible working hours
- Family service
- Further social benefits (e.g. company pension scheme, capital-forming benefits, discounted public transport tickets)
- salary is based on the assignment of tasks and qualifications and goes up to pay group 13 according to the collective agreement for the public sector (TVöD Bund)

Application

Are you interested?

Then we are looking forward to your complete online application until 20.04.2025.

More information at <https://stellenticket.de/193066/LUH/>

Offer visible until 23/04/25

