

Beneficiaries staff to be seconded to the NBTF & R&D project team in Garching/Germany

Physicist for plasma diagnostics of the Neutral Beam Ion Source

Job Description

As a member of the Neutral Beam Injection (NBI) team at Max-Planck Institute for Plasma Physics (IPP) Garching, the job holder will participate in the experiments of the RF-driven negative ion source at the test facilities BATMAN Upgrade and ELISE that are an essential part of the European step ladder approach towards ITER NBI. He/she will be responsible for planning, operating and analysing diagnostics installed at both test facilities, focusing on Langmuir probes and emission spectroscopy (OES). The work will be performed in Garching together with the IPP-NBI team. Strong collaboration with the NBTF team and related experiments is requested.

Functions/ Responsibilities

- To actively participate in the experiments of the test facilities ELISE and BATMAN Upgrade
- To operate and maintain source diagnostics installed on the test facilities with focus on electrical probe measurements and OES
- To contribute to the experimental programs for systematic measurement of source properties
- To further develop or upgrade the diagnostic systems
- To summarize the results and to present them in meetings, conferences and reports
- To collaborate with other European partners working in the same field, in particular a close collaboration with NBTF

Qualifications and experience

- PhD degree in Physics or equivalent fields
- Experience in plasma diagnostics of low temperature plasmas
- Experience in Langmuir probes and/or OES is an advantage

Knowledge, skills and abilities

- Very good knowledge of plasma physics, in particular low temperature plasmas
- Good knowledge of negative ion source physics and technology is beneficial
- Good knowledge of data acquisition systems, data evaluation and visualization
- Experience in experiments at RF-driven plasma sources is an advantage
- Good organizational, interpersonal and communication skills, high competence in team working

Date of vacancy: January 1, 2025

Contact: Prof. Ursel Fantz, ursel.fantz@ipp.mpg.de