

Beneficiaries staff to be seconded to the NBTF project team in Padova

Vacancy 1 (1 position): Physicist/Engineer for the NBTF Diagnostics

Job Description

As a member of the Neutral Beam Test Facility (NBTF) team, under the authority of the NBTF Project Manager, the job holder will contribute to the integration, commissioning, operation and data analysis of one or more NBTF diagnostics (thermal sensors, electrostatic probes, passive and active spectroscopy, infrared thermography, beam imaging & tomography, neutron imaging). Specific tasks and responsibilities will be assigned by the Diagnostics Project Leader according to the experimental phase and current needs and commensurate to experience and competences. Work will be coordinated by the interested Diagnostic Responsible Officers and will be done in close collaboration with other functions in the project team, particularly the Host Manager, the CODAS Project Leader and the Leader of Source Physics and Experiments.

The job will be based in Padova, Italy.

Working language will be English.

Functions/ Responsibilities

- Contribute to the final development phase of SPIDER diagnostics, particularly integration and commissioning
- Contribute to the development, installation, integration and commissioning of MITICA diagnostics
- Develop data visualization and analysis tools and contribute to exploitation of diagnostic capabilities
- Participate in the NBTF experimental campaigns, including shifts
- Contribute to the physics program within a collaborative effort, through integrated analysis of one or more diagnostics, supported by modeling
- Contribute to further optimization of diagnostic systems
- Take responsibilities of specific subsystems or research topics, as assigned by the Diagnostic Project Leader
- Provide full support to the interested Diagnostic Responsible Officers for best exploitation of the diagnostic system
- Maintain a strong commitment to the implementation and perpetuation of the health and safety, values and ethics

Qualifications and experience

- At least a Master degree in Physics or Engineering
- At least 3 years experience in plasma or particle beam diagnostics

Knowledge, skills and abilities

- Good knowledge of at least one plasma or beam diagnostic technique, among those used in NBTF



- Good knowledge of programming languages: IDL, Python, LabView and good programming capabilities
- Experience on electrical signal optimization in severe EMI environment is an advantage
- Experience in electrical or optical diagnostics applied to low temperature plasma is an advantage
- Experience on beam diagnostics is an advantage
- Flexibility to adapt to different research tasks according to the experimental needs
- Good organisational, interpersonal and communication skills; ability to work in a team and to promote team spirit

Nomination shall include:

CV of the candidate (uploaded as attachment to the online application form, preferably in PDF format)

The selection will be made by a panel composed of EUROfusion PMU, WP PrIO leadership and RFX representative. Shortlisted candidates will be interviewed in the final phase of the selection. The selection process is expected to be completed before 1 March 2024.

Date of vacancy: **Immediate**
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