

Max-Planck-Institut für Plasmaphysik
Teilinstitut Greifswald
Personalstelle
Wendelsteinstr. 1
17491 Greifswald
Tel.: (0 38 34) 88 – 23 50

 Max-Planck-Institut
für Plasmaphysik

Das Max-Planck-Institut für Plasmaphysik mit Sitz in Garching ist eines der führenden Zentren für Fusionsforschung in Europa und beschäftigt sich mit der Erarbeitung der Grundlagen für ein Fusionskraftwerk. Hierzu wurde in Greifswald ein Teilinstitut errichtet, in dem das neue Stellaratorexperiment WENDELSTEIN 7-X aufgebaut wird.
Weitere Informationen unter www.ipp.mpg.de

The branch institute Greifswald, subdivision experimental plasma physics 5, is looking for a

Ph. D. student

to award the thesis

Alfvén wave dispersion and ion heating in the linear VINETA device

Background:


Alfvén waves are suggested to play an important role in ion heating scenarios in the earth's magnetosphere. In laboratory plasmas studies on Alfvén waves are demanding and high plasma densities at reasonably low collisionality are required. In the rf generated plasma of the linear device VINETA Alfvén waves can be externally excited and the dispersion characteristics can be characterized in detail. These studies suffer from the relatively high plasma collisionality determined by the rf plasma generation. A new plasma source based on a large-area hot cathode discharge should be installed at VINETA, which allows Alfvén wave measurements in high density plasma with reduced collisionality. The PhD project will focus on the development of the plasma source and characterization of the dispersion relation of Alfvén waves in different magnetic field configurations with special emphasis on non-linear wave interaction and ion heating.

The student will be supervised by **Prof. O. Grulke** and **Prof. T. Klinger** She/he will take part in the Max-Planck-Research School program at the Greifswald University. The salary is 2/3 TVöD.

If you are interested please contact Prof. Dr. O. Grulke

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The branch institute Greifswald, subdivision physics, experimental physics, high frequency technology is looking for a

Ph.D. student

to award the thesis

Experimental investigation of the neoclassical transport of ECRH-generated supra-thermal electrons at the Wega Stellarator

Background:

The particle transport in the long mean free path (lmfp) regime in stellarators is dominated by the particle drift orbits. At the Wega stellarator fast supra-thermal electrons are generated by electron cyclotron resonance heating (ECRH) with 28 GHz 20 KW microwaves. The confinement of these particles can be measured by soft-X emission and other methods. The Wega Stellarator opens the possibility to test the neo-classical theory for different rotational transforms, in the presence of radial electric fields and for stellarator configurations with non-zero toroidal current.

The applicant should be an excellent experimentally orientated student with a broad (plasma) physical and technical background.

The student will be supervised by Prof. Wagner and Dr. H. P. Laqua. She/he will take part in the Max-Planck-Research School program at the Greifswald University.

If you are interested please contact **Dr. H. P. Laqua:**

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