

Mention et/ou parcours dont relève cette UE : S&T_Master Physique

Numéro de l'UE :

Nom complet de l'UE : 922 Project Prague

Composante de rattachement : FA0

Nom du responsable de l'UE et adresse électronique : Stéphane Heuraux
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Semestre : 9

Volume horaire enseigné : 70h, Nombre de crédits ECTS : 6

Volume horaire travail personnel de l'étudiant : 70h

Langue d'enseignement de l'UE : Anglais

Enseignements composants l'UE	CNU	CM	TD	PRJ	EqT D
922 Project Prague	3000			70	

Descriptif

The EMTRAIC is a training school to get practical experience with tokamak operation. The school is held on the COMPASS tokamak at the Institute of Plasma Physics, Academy of Sciences of the Czech Republic (IPP Prague). The main goal is to acquaint participants with many aspects of experimental plasma physics on a tokamak:

- planning of experiments,
- participation in measurements,
- data processing,
- discussion of results within the experimental group,
- presentation of achieved results at the closing workshop,
- writing a report.

Pré-requis

Basics in Plasma Physics and diagnostics.

Course language: English.

Acquis d'apprentissage

Students are assigned to different groups, which are supervised by experts from the Tokamak Department of the Institute of Plasma Physics. Each group consists of 1-2 students. Tasks to be executed are formulated according current experimental program on the COMPASS tokamak. For example

- Energy balance in L mode at NBI heating,
- Analysis of sawtooth and ELMs instabilities by means of SXR diagnostics and the neutral particle analyzer,
- Electron and Ion temperatures at L mode with NBI, measured by Thomson scattering and by the neutral particle analyzer and interpreted by the DOUBLE code,
- Studies of Alfvén Eigenmodes and GAMs,

- Radial profiles of density and its fluctuations by several diagnostic tools,
- Probe measurements with vertical and horizontal manipulators,
- Runaway electrons studies.

Compétences visées

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