

4th Workshop FIMAD-4
Fast Ion Modelling and Diagnostics
19-21 Feb 2014
in Innsbruck, Austria



The Plasma and Energy Physics Group at the University of Innsbruck takes pleasure in cordially inviting you to participate in the 4th Int. Workshop on Fast Ion Modelling and Diagnostics (FIMAD-4), which will take place at the Technik Campus of Innsbruck University from 19-21 Feb 2014.

FIMAD-4 will serve the purpose of presenting and discussing modifications/upgrades of EP diagnostics and modelling tools, which are prerequisite for achieving the objectives and milestones listed in the EFDA WP/EUROFUSION Consortium projects, in which most of the FIMAD-4 participants are involved. The aim is to settle – in view of these and also of future Enabling Research projects – beneficial collaborations among the several research groups.

A further effort will be to elaborate the needs and priorities for the European contributions to ITER diagnostics and ITPA EP activities.

The program/agenda have not been fixed yet, but will be sent to you before the workshop. Envisaged topics are

- EP phase space dynamics in the presence of AEs, NTMs, ELMs and RMPs
- Wave-particle resonances and their effect on convective and diffusive fast ion transport
- Overlapping of multiple resonances in phase-space
- Verification of stability and fast-ion transport codes using best diagnosed plasmas
- Implementation of 3D equilibrium data in fast-ion codes
- Quantitative assessment of 3D effects on wave-induced fast ion redistribution by experiments and modelling
- Code coupling: LIGKA-HAGIS, HAGIS-FIDIT, ...
- Consideration of collisionality in wave-particle interaction codes
- Linear and non-linear mode evolution
- Interpretive modelling of selected fast ion measurements on JET, AUG and MAST
- Improvement of JET diagnostics: SP upgrade, FC upgrade, neutron camera upgrade, gamma spectroscopy upgrade, NPA
- Diagnosing and modelling of fast ion loss distributions, heat fluxes and wall loads
- Validation and benchmark of fast-ion codes to have a reliable basis for predictive ITER modelling
- ITER diagnostic tools (capability of TOF neutron spectroscopy, ...)
- Fusion alpha impact on plasma parameters and equilibrium
- Contribution to ITPA EP activities (time dependent codes, burn dynamics, ...)

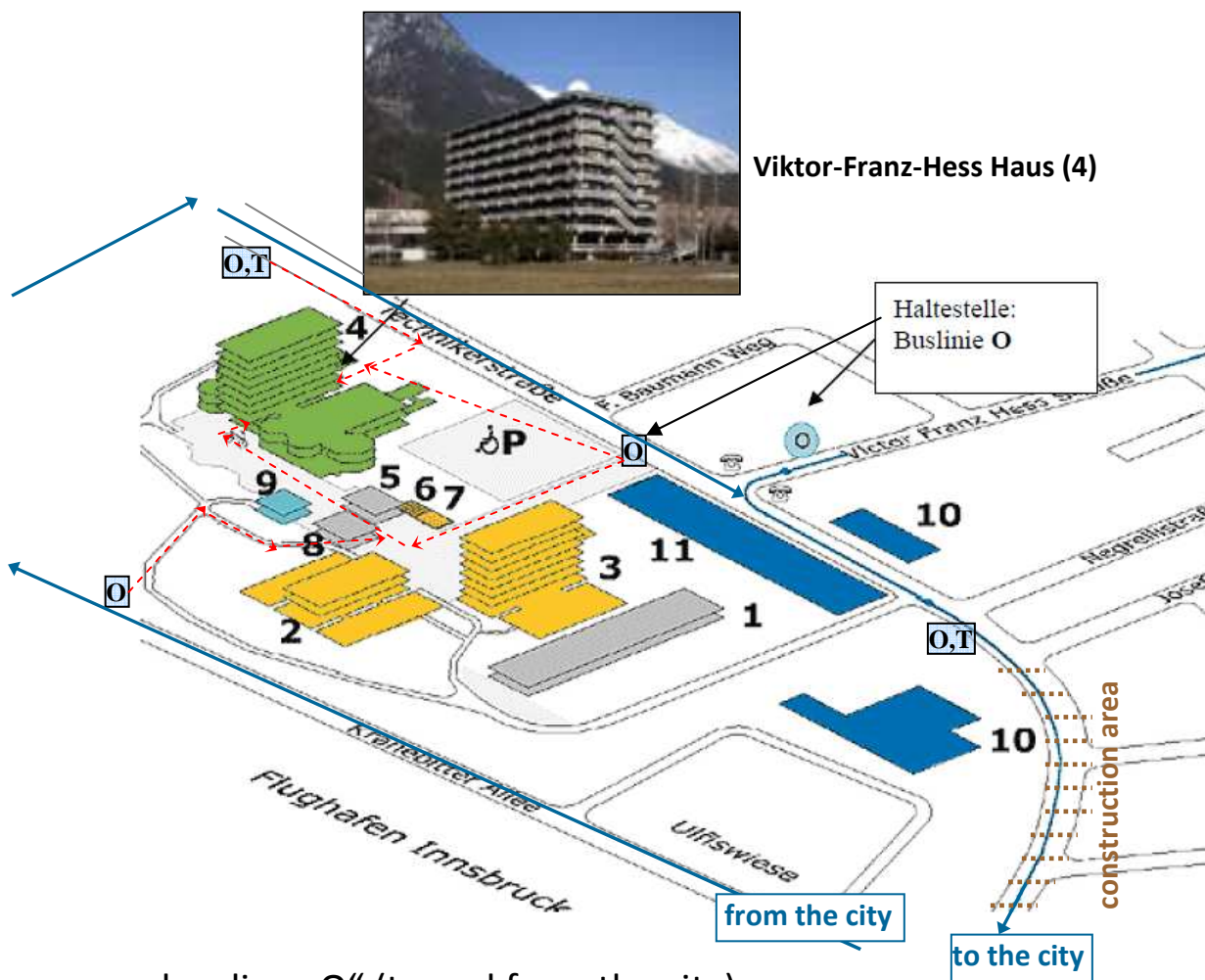
Please feel free to suggest any further topic of interest! There will be about 3 talks in the morning and afternoon sessions, respectively, with emphasis however on the discussions following the presentations. In any case you are asked to give a 20-min presentation on your recent research results as well as on tasks you seek or could offer collaboration.

Venue of FIMAD-4: University of Innsbruck, Campus Technik, Technikerstr. 25 (Viktor-Franz-Hess Haus), 2nd floor: Institut für Theoretische Physik, seminar room 2/36.

Beginning of FIMAD-4: **Wed Feb 19th, 2014 at 10:00 a.m.**

Accommodation: Hotel rooms will be reserved as soon as you let us know the dates requested

Campus Technik



— bus line „O“ (to and from the city)

----- walking paths to V.F. Hess-Haus from bus stops

Note: At present there is a construction area in the eastern part of Technikerstrasse, which allows only for one-way traffic. As a consequence, busses as well as all other cars that come from the city have to drive around the Campus!