THE ADAS-EU COURSE 8-16 OCT. 2009

Guidance on ADAS, atomic calculations and their application to fusion plasma

MAX-PLANCK-INSTITUTE FOR PLASMA PHYSICS, GARCHING NEAR MUNICH, GERMANY

I enclose preliminary information on the first of the four annual ADAS-EU courses which will take place this year at the Max-Planck-Institute for Plasma Physics, Garching, in the days immediately following the ADAS Workshop. It is an intensive, tailored course for those requiring comprehensive and detailed knowledge of the ADAS Atomic Data and Analysis Structure, atomic calculations associated with it and guidance on their embedding in fusion application. It is assumed that participants on the course are engaged in fusion plasma analysis, diagnostics or models and probably already are at work on applications where ADAS atomic data and modelling inputs might be appropriate. The course, as well as providing lectures and guided tuition, will allow the course tutors and other participants to assist in some of these participant inspired applications. By the end of the course, it is hoped participants will be will be able to act in an advisory capacity on ADAS at their home laboratories.

ELIGIBILITY AND NUMBERS: The course is open to researchers in the area of magnetic confinement fusion at associated laboratories of the European Fusion Programme (EURATOM) or at European Universities. Participants may also be nominated by any institution, world-wide, which is a member of the ADAS Project. The maximum number of participants is ten, with two places reserved for the hosting institution (The Max-Planck-Institute for Plasma Physics, Garching) and four for European Institutions. Preference will be given to persons who can attend the full course. There is no other participant selection process. Applications received after the lists are filled will be reserved in order of receipt, in case places are freed in either of the first two categories.

TIME AND PLACE FOR THE COURSE: The course will take place at the Max-Planck-Institut für Plasmaphysik, Boltzmannstr. 2, D-85748 Garching, Germany. It will commence at 9.00 on Thurs. 8 October and finish at 15.00 on Frid. 16 October. It is expected that participants will attend for the full duration of the course. There will be thirteen three-hour working sessions, in the morning and afternoon of each day of the course.

ACCOMMODATION and TRAVEL: Participants are required to make their own accommodation at Garching (see <u>http://englisch.garching.de/</u> for more information) and their own travel arrangements. The Max-Planck-Institut für Plasmaphysik is served by the Munich U-bahn system <u>http://www.urbanrail.net/eu/muc/muenchen.htm</u> (U6: stop *Forschungszentrum*, one stop on from *Garching* town centre).

COSTS: There is no charge for the ADAS-EU course. Participants in the course will be able to use the cafeteria and restaurant facilities of the laboratory.

COURSE OUTLINE: The course is divided into four parts.

Part 1: Basic and intermediate ADAS use.

Tutors: Dr. M.G. O'Mullane, Dr. Allan Whiteford, Prof. H. P. Summers. *Organisation:* Four sessions, each consisting of two, 30 minute lectures, 90 minutes of handson tutorial/example work based on example sheets and 30 minutes of coffee/discussion time.

Part 2: ADAS and Atomic Structure and Collision Calculations *Tutors:* Dr. M.G. O'Mullane, Dr. Allan Whiteford, Prof. H. P. Summers. *Organisation:* Three sessions, each consisting of two, 30 minute lectures, 90 minutes of hands-on tutorial/example work and 30 minutes of coffee/discussion time.

Part 3: Advanced applications in atomic collisions, fusion plasma models and diagnostics *Tutors:* Dr. Dmitri Borodin, Dr. Connor Ballance, Dr. Allan Whiteford.

Organisation: Three sessions, each consisting of a 45 minute background lecture, a 30 minute demonstration and 60 minutes of hands-on trial/practice. There will be ~45 minutes of coffee/discussion time.

Part 4: Participant applications Contributors: All Organisation: Six 90 minute sessions, each targetting a participant area of interest. ~30 minutes will be available for the participant to introduce and summarise his/her area. The 60

minutes will be available for the participant to introduce and summarise his/her area. The 60 minute discussion will engage all participants and tutors. It will focus on the atomic physics issues. It is planned that a person with ADAS experience suited to each participant's special topic will be identified to help in alignment of ADAS capabilities with the participant's topic during the course. This part will have a winding-up and future planning session in the final afternoon.

ENQUIRIES: The ADAS-EU course is organized by the University of Strathclyde with the support of the Max-Planck-Institut für Plasmaphysik. Correspondence and general organization will be handled by

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to whom queries should be sent.

WEBSITE: Important information on the course will be e-mailed to registered participants, but full details about the course will be also be posted at www.adas-fusion.eu/course2009.php .

HPS 15 June 2009

REGISTRATION: Please complete and email the registration slip or notify intentions to Hugh Summers at the email address above as soon as possible.

| The ADAS-EU Course | 8-16 Oct. 2009 | Participant registration | |
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| Name: | | Institution: | |
| Address for corresponde | ence: | | |
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| | | Post code: | |
| Tel: | | Email: | |
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| My research area is: | | | |
| I do /do not expect to be | able to attend for th | ne full duration of the cou | rse. |
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