THE ADAS-US COURSE 10-13 OCTOBER. 2011

Guidance on ADAS, atomic calculations and their application to fusion and astrophysical plasmas

AUBURN UNIVERISTY, AUBURN AL

I enclose preliminary information on the second annual ADAS-US courses which will take place this year at Auburn University, AL. 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 plasma applications. It is assumed that participants on the course are engaged in plasma analysis, diagnostics or modeling and probably already are at work on applications where ADAS atomic data and modeling 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 and astrophysical plasmas. Participants may also be nominated by any institution, worldwide, which is a member of the ADAS Project. The maximum number of participants is ten, with two places reserved for the hosting institution (Auburn University). 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. Note that there may also be room for some non-ADAS participants, who are interested in learning more about the capabilities of the ADAS database and codes.

TIME AND PLACE FOR THE COURSE: The course will take place at Auburn University in Auburn, AL. It will commence at 9.00am on Monday 10th October and finish at 4.00pm on Thursday 13th October. Participants are welcome to stay longer if they have particular projects that they would collaborate on with course organizers.

COSTS: There is no charge for the ADAS-US course. However, participants will have to cover their accommodation and travel costs. Participants in the course will be able to use the cafeteria and restaurant facilities of the university.

COURSE OUTLINE: The course is divided up as follows:

***Monday**:* Basic and intermediate ADAS use.
Tutors: Dr Stuart Loch and Dr. Martin O'Mullane.
Organization: Three sessions, each consisting of a 45 minute lecture, 45 minutes of hands-on tutorial/example work based on example sheets and 30 minutes of coffee/discussion time.

***Tuesday**:* Ionization state and charge exchange modeling.
Tutors: Dr. Martin O'Mullane and Dr. Stuart Loch.
Organization: Three sessions, each consisting of a 45 minute lecture, 45 minutes of hands-on tutorial/example work based on example sheets and 30 minutes of coffee/discussion time.

***Wednesday**:* Generalized collisional radiative modeling and advanced data generation.
Tutors: Dr. Stuart Loch, Dr Martin O'Mullane, Dr. Connor Ballance, Dr. Mitch Pindzola.
Organization: Three sessions, each consisting of a 45 minute lecture, 45 minutes of hands-on tutorial/example work based on example sheets and 30 minutes of coffee/discussion time.

***Thursday**:* Participant project work
Contributors: All
Organization: Six 90 minute sessions, each targeting a participant area of interest. ~30 minutes will be available for the participant to introduce and summarize his/her area, along with preliminary results from the previous three days of the course. 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 during the final afternoon.

ENQUIRIES: The ADAS-US course is organized by the Auburn University. Correspondence and general organization will be handled by

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