



To the Heads of Research Units

Our Ref.: TD/MLM-1447
Date: 31 October 2014

Dear colleagues,

INVITATION TO SUBMIT PROPOSALS FOR THE 2015 EXPERIMENTAL CAMPAIGNS ON MEDIUM SIZE TOKAMAKS

Experiments on medium-size tokamaks (WPMST1) complement the work at JET (WPJET1) to provide a step-ladder approach for extrapolations to ITER and DEMO. They also cover areas and regimes where MSTs have unique experimental capabilities and flexibility. In addition, modelling (integrated and first principle) for preparation and interpretation of experiments is an integral part of the MST and JET work packages in order to ensure an efficient exploitation of the experiments and extrapolation towards ITER and DEMO.

For the 2015 experimental campaigns, two MST devices will be in operation: ASDEX Upgrade (AUG) in Garching (Germany) and TCV in Lausanne (Switzerland). The remaining MST device, MAST-U, will be in shut-down in 2015.

ASDEX Upgrade with its all tungsten plasma facing components will continue to play an important role as a medium sized counterpart to JET, specifically for experimental investigations which rely on all metal plasma facing components. In 2015, AUG experiments will benefit from the installation of two new three-strap ICRH antennas to increase the power (generator power 7MW) while minimizing the source of W through the reduction of the rectified RF sheath. The European exploitation of ASDEX Upgrade, made in parallel with the IPP internal program, will start in June 2015 and continue until the end of the year (no operation in August or early September).

TCV will become available in the second half of 2015 from September to December 2015, for the WPMST1 physics campaign. During 2014 and early 2015, TCV is undergoing a major upgrade in heating power (NBI) and diagnostics which will enable, amongst other studies, proof of principle investigations on alternative divertor (e.g. snowflake divertor) configurations.

In this context, the 2015 Annual Work Plan (attached), approved by the EUROfusion General Assembly on 23 and 24 September 2014 in Vienna, provides the main objectives and deliverables of the 2015 experimental campaign to be performed on ASDEX Upgrade and TCV in the frame of the MST1 work package.

For a successful implementation of this work plan for MST1, the appointed task force leaders have opened a Wiki page on:

http://users.jet.efda.org/iterphysicswiki/index.php/WPMST1_2015_Proposals.

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Proposals are welcome for:

- Experiments in 2015 on AUG and TCV together with the related analysis, related integrated tokamak modelling, associated validation of first principle modelling against experiments, and possible extrapolation towards ITER and DEMO.
- Joint modelling activities of previous MST (AUG, TCV and MAST) and JET data on specific physics topics tightly connected with the 2015 MST experimental campaign
- Analysis and modelling of previous data from MAST in preparation for the 2016 experiment campaign.

The deadline for receiving the proposals on the Wiki pages is 23 November 2014.

The Task Force Leaders have also written a "Preamble to the 2015 MST1 Call for proposal" (attached) describing precisely what it is expected from the proposals.

The received proposals (including analysis and modelling) will be analysed by the MST Task Force Leaders. The outcome of the analysis will be presented and collectively discussed during the joint General Planning Meeting for JET and MST which will take place in Lausanne from 19 to 23 January 2015 (the invitation letter will be send mid-November). In the meantime, if you have further questions during this preparation phase you are invited to liaise with the MST Task Force Leader P. Martin and deputy leaders M. Beurskens, S. Coda, H. Meyer, T. Eich (mst1-tfl@euro-fusion.org) and M.-L. Mayoral (marie-line.mayoral@euro-fusion.org), as the corresponding Responsible Officer within the Programme Management Unit.

I trust that the strong involvement of your Research Unit in the use of the MST facilities under EUROfusion will continue during this preparation phase of the 2015 experimental campaigns. Thus, I look forward to receiving the proposals of your Research Unit.

Yours sincerely,



Tony Donné
Programme Manager EUROfusion

cc: X. Litaudon, D. McDonald, M.L Mayoral, A. Kallenbach, S. Coda, MST Task Forces Leaders, JET Task Forces Leaders, C. Mrozek, A. Murari, L. Barrera Orte, M. Turnyanskiy, I. Voitsekhovitch, G. Falchetto, Association Administrative and Scientific Contact Persons, D. Campbell

Encs.

- 1) 2015 Annual Work plan
- 2) A Preamble to the 2015 MST1 Call for proposal prepared by the MST1 task force leaders

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