

Role of MST1 Scientific Co-ordinators

The Scientific Co-ordinators (SCs) leading High Level Topics (HLTs) should make sure that experiment, modelling activity and any additional task falling under their topics will be prepared, performed and analysed in such a way that the objectives of each topic are met as efficiently as possible.

The SCs should have high expertise in the topics they are proposed for (PhD in their final years will be accepted under exceptional circumstances).

The SCs should have good communication and presentation skills. They should be able to interact with a multi-cultural experimental team in an efficient way. This involves organising regular meetings, keeping the teams informed by emails, filling the topic wikis pages.

The SCs should be flexible enough to be in person on the Medium Size Tokamaks (MSTs) (AUG, TCV or MAST-U) where the experiment related to their topic is performed and so, for at least the week(s) of the experiment. It is also strongly advised that the SCs spend at least one week prior to the experiment for preparation and one week after the experiment for initial analysis or to allow “left-over” shots to be performed.

The SCs will be at all the time supported and guided by the MST1 Task Force Leaders (TFLs) which will oversee the work done, but also by local machine expert if they are not familiar with one of the MSTs and by the Modelling coordinators. The SCs are also expected to support the TFLs in formulating the final objectives of the HLT they are responsible for.

It is not mandatory for the SC to make proposals for the topic they are willing to coordinate.

Several SCs might be appointed per high level topic. Experiments submitted under the “Other topics” section and subsequently accepted, will have the main proponent appointed as SC.

Manpower commitment:

EUROfusion contribution to the SC manpower is 50% of the salary plus 25% indirect costs.

In 2016, 1 person months (\approx 4 weeks) will be allocated to the selected SCs. Mission’s days will be of course granted to participate to the MST1 planning meetings.

In 2017, we ask the SCs to propose time for home lab work, taking into account their other commitment. Nevertheless, we would expect commitment in the range of 3 person months (\approx 10 weeks). Additional missions and manpower will be allocated at a later stage for visits during experimental campaigns.

The main responsibilities of a SC can be detailed as follow:

1. Prior to the call for participation (new)

- Present at the MST1 planning meeting the status on the work on his high level topic
- Summarise the proposals received under his high level topic
- Integrate the proposals to produce the detailed experiment strategy / modelling / tasks for the up-coming year.

- Provide input to TFLs on experimental teams competencies needed (including modelling)

2. When the experimental teams are set-up and prior to any MST experimental time

- Organise regular meetings with the experimental team, TFLs in charge and when relevant machine operator's experts (session leaders, heating experts, diagnosticians) and Modelling Coordinators in order to thoroughly defined the experimental requirements, modelling frame...
- Fill the related wiki page which is the central point to get information about progress made:
 - The experimental strategy, diagnostics and machine requirements and pulse list should be filled 2 weeks ahead of any experiments. **This is mandatory from an operational perspective, to make sure that the experiments can take place when planned**
 - The status of preparation / feasibility of the experiments are reviewed 2 weeks in advance at the MST1 coord meeting.
- In the case of AUG, make a corresponding shot request
- The SC has the role to integrate any modelling activities and when relevant, any additional task work.

3. Following experimental time

- Present after each session, a brief summary of the results obtained in AUG / TCV / MAST-U weekly meetings*.
- Organise regular meetings with the experimental team, TFLs in charge and when relevant machine operator's experts (session leaders, heating experts, diagnosticians) and Modelling Coordinators in order to thoroughly defined the experimental requirements, modelling frame in order to organise the analysis of the results or prepare subsequent experimental time.
- Present when the experiments is complete (or when analysis has significantly progressed) an overview of the results obtained in a MST1 Task force meeting
- Fill the wikis pages with the main results obtained.
- Coordinate the publication of the results at conferences and refereed scientific journals.
 - The SCs are expected to have at least one publication at a conference or in a refereed scientific journal.
 - The SCs with the help of the TFLs should make sure that an appropriate number of team members can publish specific results from the coordinated work.
- Ensure with the TFLs that the presented analysis is of the highest quality and rigor.

More detailed info can also be found under the [MST1 scientific coordinator responsibilities](#) wiki page.

** Still to be decided for MAST-U

Role of MST1 Modelling Co-ordinators

The Modelling Co-ordinators (MCs) main role is:

- To advise the SCs / TFLs and make sure that any modelling performed in order to prepare / analyse the experiments and extrapolate the results is done with the best tools available.
- To organise meetings to review modelling activities cross-topics
- To organise workings meeting when necessary

The MCs must have expertise above PhD level in the topics they are proposed for.

The modelling topics to be coordinated are:

- Coordination of core transport modelling
- Coordination of modelling of ELMs and pedestal
- Coordination of edge and SOL modelling
- Coordination of modelling on MHD stability and its control
- Coordination of fast ion modelling (stability and transport)
- Coordination of filamentary transport modelling

Manpower commitment:

EUROfusion contribution to the SC manpower is 50% of the salary plus 25% indirect costs.

In 2016, 0.5 person months (\approx 2 weeks) will be allocated to the selected MCs. Mission's days will be of course granted to participate to the MST1 planning meetings.

In 2017, we ask the MCs to propose time for home lab work, taking into account their other commitments. Nevertheless, we would expect commitment in the range of 1 person months (\approx 4 weeks). Additional missions and manpower will be allocated at a later stage for visits during experimental campaigns.