**TG Edge&Divertor**

**Subgroup Fueling & Exhaust**

**H exhaust Kick off**

**09.02.2022 from 1000 to 1105**

**Attendees:**

Thierry, Christos, Victoria, Georg, Stepan, CP, Stylianos, Joris. Volker joined for the last 15 minutes.

**Meeting objective:**

Bring everyone on the same page, define roles, project goal, communication and documentation.

**Introduction round:**

CP’s two main topics are PWI and the cryo pump. In PWI he’s interested in wall conditioning and the interaction of carbon & boron and comparing metal surfaces vs graphite. Regarding pumping he brings a lot of expertise in regards to the cryo vacuum pump.

Georg is a specialist in neutral gas diagnostics. He’s in charge of the integrated joint calibration of all different pressure measurements and gas sources. Besides different effective pumping speeds he also interested in particle transport in the private flux region, from the strike line to the pump gap, as well as the wall behavior through his gas balance.

Stylianos brings extensive experience in DIVGAS modeling for numerous large scale fusion devices. DIVGAS is tailored to model the neutral gas dynamics in the sub-divertor to bridge the gap between the pump gap and the actual pumps from the modeling side. He’s interested in comparing the model to experiments and would like to use DIVGAS to optimize particle exhaust.

Christos is a Post-doc in the KIT vacuum group and is interested in the optimization of DIVGAS.

Victoria is a PhD student at IPP who’s working on ANSYS neutral gas modeling of the sub-divertor space and would like to compare the ANSYS to DIVGAS modeling. She’s interested in modeling of the cryo pumping capacity.

Stepan is mainly interested in He exhaust but would like to listen in to use the synergies, in particular with pumping speed estimates to H exhaust.

Joris would like to listen in, as he is working on the new Tungsten divertor and would like to learn about the exhaust in order to optimize the new target geometry.

Thierry is interested tau\_p and tau\_p\* measurement and understanding the H fuel cycle.

**Feedback round:**

Our KIT colleagues currently don’t have access to the X-drive. All important information in regards to meetings like presentations and minutes will also be uploaded on the indico to which everyone has access. Dirk is aware of this issue. He applied for V-PCs for the KIT colleagues and will take care of x-drive access.

Georg raised the question on how many proposals we should prepare and mentioned doubts about discharge and plasma quality in OP2.1. The exact number of necessary proposals can not be stated. We should have as many as we need for experiments to answer our questions.

Overlap in topics will be tracked in the excel sheet. If topics are discussed in other groups, links to the groups and contact person will be provided for transparency.

The importance of He enrichment and effects that only pump He but not H was pointed out by Joris. However this topic is discussed in the Subgroup “He exhaust”

After a discussion about possible Ar frosting of the CVP, CP elaborated on the functionality of it:

The CVP can either be turned on for an experimental day or off. All cryo modules in all 10 divertor units are controlled together and it is not possible to only shut one module off.

**Action items:**

Next meeting is as scheduled on February 16th. Drafts for proposals will be prepared based on the assignment of the main topics and discussed in that meeting. Agenda will be published on Monday.