

Minutes of RESULTS, PITZ Physics Seminar, 20.11.2014

Project: PITZ

Participants: G. Vashchenko, M. Otevrel, F. Stephan, M. Gross, P. Boonpornprasert, I. Isaev, Y. Renier, M. Bakr, D. Malyutin, C. Hernandez-Garcia.

Agenda:

- 1) GV: Resonance temperature from dark current measurements.
- 2) GV: Zigzag ramping issue in SMAC.
- 3) YR: Matching of the beam at the entrance of the plasma region.
- 4) Conference list: cost estimation.
- 5) AOB.

Results:

- 1) G. Vashchenko: Resonance temperature from dark current measurements:
 - 200us, max power for 9500V
 - DC measured as a function of the gun temperature:
 - Resonance between 72.10-72.15
 - 5MW coupler in better accordance
 - 10MW coupler shows overcooled, but not far from resonance.
 - 2nd measurements done with corrected slope - not reliable.
 - When DC maximum determined by integration (not the p2p), the results were more reliable.

- 2) G. Vashchenko: Zigzag ramping issue in SMAC:
 - The problem: For zigzag ramping if there is a ramp interruption (high vac, refl, communication problems etc.) there is no knowing which the next steps would be. Should be solved so that it goes ALWAYS UP after an interruption.

- 3) Y. Renier: Matching of the beam at the entrance of the plasma region:
 - Matchin done with MAD, checked by ASTRA. Min size (50um) at the beginning of the plasma region
 - Scattering at the foil simulated.
 - The beam size as the dependence on the scattering angle showed.
 - The beam matching found was considerably asymmetric. Another trial might be done to find a more symmetric match with smoother focusing.
 - No big difference btw. ASTRA and MAD
 - Proposal: install a screen station at the place of the plasma region entrance to check the matching experiments. (Consider including the kapton foil as well.)

- 4) AOB:
 - If you have anything not urgent to discuss with Frank, do it after lunch.

Next steps:

What is to be done ?	By whom ?	Until when?	Done on
Check sieves in the water system, examine pressure drops on them.	Joerg (?)		
SMAC update (see #2 Zigzag ramping issue)	David M.		
Decide who will join the M division operation seminar (auf Deutsch!) in March	PITZ group	Next PPS	
Register for the collaboration meeting	PITZ group		
The <u>Proposal</u> from #3	Yves		

Protocol prepared by:
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(Name, Date)