

Minutes

EN/MME Meeting for HL-LHC CRAB CAVITIES

Monday, 19th January 2015

Room 376/1-020

Scope: regular meeting for the HL-LHC CRAB CAVITIES (WP4) Project at EN/MME.

Attendees: Kurt Artoos, Ofelia Capatina, Teddy Capelli, Luca Dassa, Norbert Kuder, Raphael Leuxe, Paula Freijedo Menendez, Carlo Zanoni

General

On the 29th Bmax will be at CERN for discussing a possible involvement in few fabrication activities. The use of the electro-hydroforming technology is an option for shaping the cavities.

DQW

Raphael updated on the status of the cavity design. As known, the design is finalized except for the interface with the He tank, which may still be subjected to modifications. The current design may have some issues for manufacturing. Ofelia suggested to slice in two halves the Ti rings that constraint cavity and He tank. Teddy proposed also to use the thin plate that covers the screws to cover also the two halves of the Ti rings, to avoid crossed welds (Action → Raphael).

Paula is going to carry on the Nb-Ti on Ti TiG weld test that is needed for joining the Nb-Ti and Ti rings along with cavity and He tank (Action → Paula).

Tuning

Kurt updated on the status of the prototypes for the test of the tuning system. The fabrication is foreseen ending in mid-end March.

Helium Tank

Carlo showed a small update on the concepts of support systems with respect to their modal performance. Looks like the only way for achieving a 1st mode frequency above 50 Hz is the use of several (i.e. > 2) rods. The activity is still on-going and –among all- the effect of inter-cavity stiff links will be assessed (Action → Carlo).

HOM

The design has now reached an almost finalized stage. Teddy is going to include the last small updates in the 3D design (Action → Teddy) and Carlo will run the simulations on the final geometry and write a final report (Action → Carlo).

Next meeting: Monday the 26th in room 376/1-020.

Minutes taken by Carlo.