

Minutes RF structure meeting 07.11.2008

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Buncher Cavity:

- full job (construction, frequency tuning ...) will be done by the Soltan Institute (HITEC) in Poland (cheapest offer) within 6 months,
- they also interested in the construction of the PIMS, pending the results of the buncher,

DTL:

- Resolution problems in 6 cell simulation with MWS. GiovanniDeMichele will verify the simulation with NaderAlharbi. Also an HFSS simulation was set up by FrancescoGrespan.
- First Frequency measurements on the DTL prototype indicate a resonance frequency of 328MHz for the TM_{010} mode. The frequency error is probably due to errors in the half drift tube positions at the ends of the cavity with respect to the girder position. Influence of errors in cavity diameter are much smaller (600kHz for a machining error of 0.6mm in radius). The frequency error must be understood and will be investigated by GiovanniDeMichele, SuitbertRamberger, FrancescoGrespan.
- Superfish simulations without end-caps to cross-check the frequency measurements without end-cap will be done by SuitbertRamberger.
- As a first conclusion, end-caps have to be measured before copper plating and corrected according to metrology and survey results.
- Bead-pull measurements are going to be performed by GiovanniDeMichele and FrancescoGrespan. A drive belt has been ordered but was not yet delivered. In the meanwhile, it should be tried to use a rubber belt instead.

PIMS:

- Prototype drawings are ready for construction.
- Construction at CERN will start in the next days.
- Further results are presented next week by RolfWegner

HOM:

- Investigating influence of pulsed operation on power dissipation in cavities and comparing to cw operation. There are major differences as long as decay time is smaller than repetition time. Further calculations are done to estimate needed cryo power. (MarcelSchuh)

-- MarcelSchuh - 07 Nov 2008

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