

Minutes RF structure meeting 28.11.2008

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DTL

- 3D simulation (HFSS) of the Prototype (without post-couplers, without tuners) (**action** FrancescoGrespan). see SPL/DriftTubeLinac/PrototypeSimulations
 - ◆ 1 % slope for nominal geometry.
 - ◆ Having aluminum end half drift tubes reduces Q by only 250 (It is expected that with RF gaskets the nominal Q should be reached).
- Comparison of bead-pull measurements on post-coupler modes, and 3D simulations (HFSS) for the DTL prototype with post-couplers shows very good agreement. (**action** FrancescoGrespan, GiovanniDeMichele). see SPL/DriftTubeLinac/PrototypeMeasurements, SPL/DriftTubeLinac/PrototypeSimulations
- Frequency measurements around the confluence point: Discontinuities appear where a post-coupler mode crosses the TM_{010} mode. (**action** FrancescoGrespan, GiovanniDeMichele). see SPL/DriftTubeLinac/PrototypeMeasurements
- F.Gerigk suggests to find the proper length for each post coupler, using the Slater perturbation theorem, before starting the tilt sensitivity measurements.
- J.-M. Giguet got a special sliding calliper from the metrology lab to measure gap lengths inside the tank (SuitbertRamberger). Up to three gaps can be measured through the beam tube.
- High-power tests should be started as soon as possible - Mid January 2009 appears feasible (FrankGerigk, SuitbertRamberger).
 - ◆ start without having the water cooled post couplers ready
 - ◆ monitor with 2 pick-ups if there is a possible field tilt
 - ◆ go back to cold measurements
 - ◆ at a later moment introduce water cooled post couplers
 - ◆ re-do high-power test.
- Bead-pulls to measure tilt sensitivity for various post coupler settings need to be done after high-power tests.
- See SPL/DriftTubeLinac/PrototypeProduction for a task list on how to continue (SuitbertRamberger)

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