

1st MPE HiLumi StringTest Brainstorming

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1 Presentations

The slides can be found on the [Indico sites of HiLumi WP7: https://indico.cern.ch/event/482764/](https://indico.cern.ch/event/482764/)

1.1 Discussion (all)

- Daniel gives an introduction of the schedule and plans for the HiLumi String.
- String test and LS2 have a significant overlap, which might cause a man power problem for the hard- and software sections of MPE → add String test to MPE project list (Felix / Reiner)
- During the string (close to) final versions of the interlocks, QDS and controls interfaces should be available and used / tested / verified.
- The string will be the possibility to debug and gain experience with the IST and commissioning of these new systems.
- Testing of interlock loops and quench loops has to be included.
- The StringTest is the first time real world testing of IT protection with quench heaters, CLIQ allowing the verification of simulation models.
- The electromagnetic coupling between the different circuits needs to be tested / verified during the string.
- A two stage approach is proposed: String 1 will be a test-bed to test signal integrity and verify the full functionality having some flexibility. String 2 should see the final versions of all systems.
- CLIQ layout should be tested at the beginning of string 1 (needs the availability of multiple CLIQ leads, flexibility with pole orders etc) to feed into the series production of the IT magnets.
- String phase 2: test fully automated analysis of faults + automatic fault recovery (QDS + MP3+ Software)
- ELQA procedures will be verified during the string.
- If applicable EE systems have to be validate during the string.