



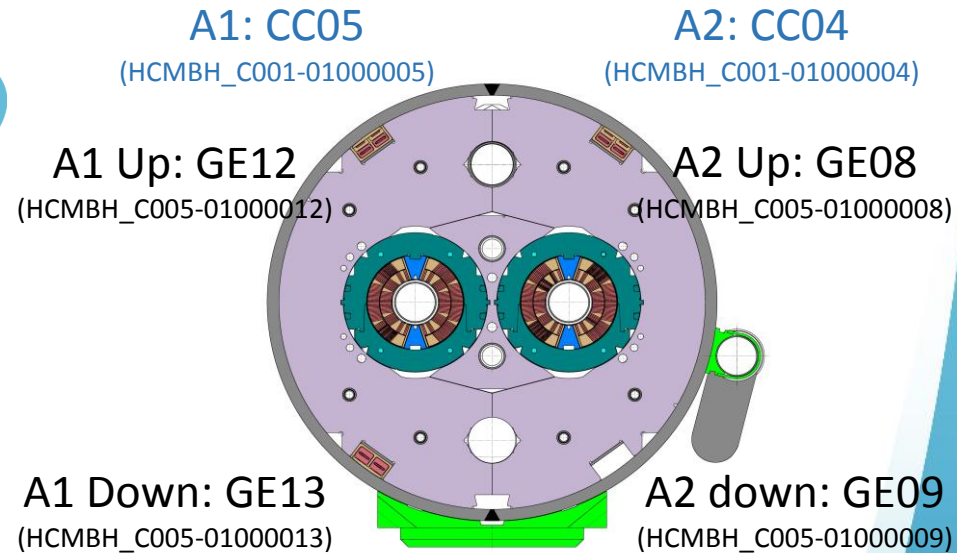
LMBHA-001 (S2)

Data analysis

A few words on work organization

And what if?

F. Savary



2020-03-27, <https://indico.cern.ch/event/903177/>, <https://vidyoportal.cern.ch/join/ls160HZZfg>

Regarding data

- Following last week meeting
 - Measurements data are centralized by Gerard and Franco
 - See next presentation by Gerard/Franco as to the structure of the data repository, the format of the files, and the naming conventions adopted in order to ensure traceability with the different tests and data sets
 - Please always check with Gerard/Franco that data you retrieve from the repository corresponds to the case you wish to study, and always refer to the file names when reporting on your analysis

Regarding work sharing

- Following further discussions with some of you:
 - Case 1: intermittent short Gerard and Emmanuele
 - Case 2: effect of flux jumps Bernardo and Dario
 - Case 3: mechanical movements Hervé
- Then, other analysis work is ongoing, in support of the above study cases:
 - Wavelets: Lucio and Marco
 - Specific measurements / analysis (e.g. impedance measurements): Jaromir and Mateusz
 - Relating to the power convertor: Samer and Michele

What if?

- What test could be done to qualify the magnet for installation in case we cannot explain with sufficient soundness and confidence the reason(s) for the spikes (... and they are still there)
- [Arjan and Luca] It is proposed to check that the spikes are not affected by the larger voltage to ground that we have in a MBH full assembly in the LHC, considering the additional EE voltage of about 450 V, and the (small) imbalance between the two 11T magnets
- This would imply an additional test at higher voltage
- Gerard & Franco to investigate whether we can perform quench tests (discharge tests) in SM18 with an increased voltage to ground (of about 1kV, exact value to be defined)

As to tests still to come

- E.g. Artificial short
- Define beforehand at test plan, and what we expect, i.e. if the results are “this” then intermittent short is confirmed, and if the results are “that”, then intermittent short is excluded
- And this should be done for any other tests that we could add to the plan



Thank you for your attention!

