

MQXFAP2 Analysis

AGENDA:

- Let's start from data:
 - What data are we collecting? Anything we can add?
 - What data have we been analyzing?
 - What data do we need to analyze?
- Analysis in progress
- Analysis to be done
- Hypothesis for explanation
- Discussion about next steps

Data:

- Quench history and MIITs
- Quench location by Voltage taps
- Lost voltage taps as signal...
- Quench location by Quench Antenna
- Strain gauges on shells
- Strain gauges on coils
- Strain gauges on rods
- Coming soon: Magnetic measurements – Z scan
- Other???

Analysis:

- Quench History:
 - 1.5 – 2 kA lower than MQXFAP1
- Voltage tap analysis (Joe):
 - Quenches 1-11 in Inner Layer pole turn, all coils quenched at least once
 - Quenches 12 and 13 in Outer Layer multiterm
- Quench antenna analysis and quench start location (Maxim)
 - Quenches 1-11 in/close to Return End
 - Quench 12: ???
 - Quench 13: Lead End
- MIITs and voltage rise wrt to MQXFAP1 (Vittorio)
 - Less step than in MQXFAP1
- Strain gauges (Heng, Dan)
 - Event at 7 kA in first ramp (up to 12 kA no quench)