Talk 1 – I. Mases

- **Intensity ramp-up**

  - Standard beam: from 2.2e11 ppb to 2.3e11 ppb and explore margins to improve robustness and reproducibility

    - MKDH conditioning

      - Why did we get stuck at the end of the run? There is one main reason: 1) we were asked to not push the intensity to avoid to break the wire scanner we did just consolidation, 2) it is also true that frequency of MD decreased: scrubbing of MKDH is less effective, long flat top is critical to have efficient MKDH scrubbing 3) Moreover there were issue with RF 800 MHz cavities.

  - 8b4e beam: from 2.15e11 ppb to 2.5e11 ppb and explore margins to improve robustness and reproducibility

    - Vacuum activity close to TT60 junction

- **Wire scanner**

  - No issue expected during 2024 run (even during long flat top scrubbing if SFTPRO in parallel)

    - Run with SFTPRO in parallel during long flat top scrubbing. BI is implementing warning levels

- **Horizontal high bandwidth feedback system**

  - Horizontal stability ok if bunch length from PS is under control

    - Up to which intensity we can go? Should be simulated and/or tested!

Talk 2 – I. Karpov

- **PS reliability**

  - Bunch length

    - 3.6 ns achieved. To make this operational best performance should be   mantained during the run

- **Cavity faults vs intensity**

  - Not clear correlation with beam intensity

- **SPS longitudinal instability**

  - Instability driven by the 915 MHz HOM to be studied further (not limiting up to 2.2e11 ppb with 288 bunches)

- **SPS RF power**

  - Siemens power plants limited at 80% of LIU design. Other plants at design peak power

Talk 3 – TDIS etc. (C. Sharp)

- **TDIS bellows weakness**

  - Understood but devices will remain noncompliant in 2024 run

    - Unecessary cycles of jaws to be avoided

  - Compliant spares target summer 2024 with possibly additional instrumentations (thermocouples and feed throughs)

- **TDIS RF screen temperatures**

  - High temperature readings during 2023 not understood

  - Interlock will stay at 150 C until spares will be available

  - Strategy to be defined: opening to reduce temperature vs limiting number of bellows cycles

- **TCPC (crystal collimators)**

  - Offset for crystal channeling angle possibly due to localized heating

    - Studies are ongoing and impact on operation to be addressed

- **SPS scraper**

  - Movement issue is control driven and under investigation but no showstopper foreseen for 2024

Talk 4 - kickers (G. Favia)

- **MKP-S**

  - Defining scrubbing speed in 2023 due to heating

    - Mitigation options available on different timescale

      - 10 mm beam offset (first trial during 2024 scrubbing), cooling and design modifications (longer term)

- **MKDH**

  - MKDH1 and MKDH3 (type A): significant kick reduction probably due to eddy currents in too thin lamination

    - Need to investigate if missing redundancy is still ok

  - Spare availability: presently only one MKDH2 (type B)

  - Failure requiring exchange would imply long conditioning time

- **MKI cool**

  - Heating reduction confirmed during 2023 run

  - MKI-cool #2 ready for installation (this YETS)

- **MKB flashover**

  - Dust is a probable cause: **improved procedure for installation of plasma screens** during YETS 23/24

Talk 5 – LHC RF fingers (C. Antuono, P. Krkotic)

- **Possible failure mechanism identified: localized heating on spring**

  - Simulation model shows localized heating on the spring consistently with observations

  - Beam induced power strongly depends on contact quality

    - No issues expected with ideal contact!

  - Contact quality of each module is unknown: intensity threshold cannot be predicted

- **Do we expect additional failures during 2024 run**

  - 24 modules with spring+finger design remain: in 2023 the failure was observed at 1.63e11 ppb

  - Risk of additional failures at higher intensities

    - Failure recovery similar to 2023 (from 2 days to 2 weeks depending on location)

- **Could smaller modules be affected?**

  - They are expected to be less critical: simulation studies are ongoing on 130 mm modules for a quantitative comparison

- **Presently impedance mitigation of the remaining 24 standard modules is not under consideration for this YETS**

  - Impedance mitigations are being investigated and will likely be implemented during YETS 24/25