

# AOB: summary of threshold changes planned in the YETS2017/18

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# Threshold changes YETS 2017/18

- **TCLs (IR1/5):** create a new BLM family for tungsten-based TCLs in cells 4/5 (TCL.4L5.B2 and TCLVW.5L1.B2). The family should derive from the existing THRI\_TCL\_W family, but with another FT correction. The FT correction can be based on 2017 measurements of the TCL.4L5.B2 BLM scaled to a lumi of  $2 \times 10^{34}$  cm<sup>-2</sup> s<sup>-1</sup>.  
⇒ see talk of Alessio
- **TCPs, TPSGs, TCLAs (IR7):** revert the MF from 0.8 to 0.4, which had been increased in 2017 to improve data collection for 16L2-related events. Once FT corrections have been empirically adjusted based on 2018 loss maps, decide if we consistently increase MFs at collimators \*and\* magnets to allow for a higher power loss (depending on collimation team).
- **Q6 (IR7):** investigate the Q6 BLM warnings at the end of the ramp, in particular if this is consistent with loss maps. Based on the 2017 measurements, introduce a FT-like steady-state loss (SSL) correction at relevant energy levels to avoid spurious dumps in the ramp.  
⇒ see talk of Alessio
- **Q4/Q5 (IR6), Q6 (IR7), MQWs (IR7):** revert FT corrections introduced for the 2.5 TeV run. Assess in LS2 if SSL corrections at all energy levels should be incorporated in the global threshold strategy for collimation losses.

# Threshold changes YETS 2017/18

- **Q6 (IR2/8):** Move monitors from THRI.LS.P1\_MQM.MF and THRI.LS.P2\_MQM.MF to their respective standard family
- **Q5 (IR2 left):** THRI.LS.P1\_MQY.MF rescale master thresholds and MF to keep the same applied thresholds, but arrive at standard MF (cosmetic change)
- **Horizontal MB-MB BLMs (DS):** introduce new families with an updated threshold model.  
⇒ *see talk of Tatiana*
- **MB (31L2):** do not modify the threshold of the BLM which will be lifted to make space for the solenoid around the QBBI.A31L2 interconnect. In the very unlikely event of a quench, we can adjust the thresholds by lowering the MF.
- **MB, MQ BLMs in 16L2/17L2:** keep for the moment the lower thresholds, but revert them to the original settings in TS1 if no abnormal losses are observed in 16L2.