Contribution ID: 41

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Beam Induced Heating including TDI

Monday, 25 January 2016 17:35 (20 minutes)

15'+ 5'

<P> Beam induced RF heating of several LHC devices represented a significant limitation before LS1. A lot of effort was invested by equipment groups to mitigate these issues and add monitoring to be able to react early. This effort clearly paid off in 2015 and most limitations could be waived. Bunch length could even be allowed to decrease below 1 ns during long fills without significant adverse effects. The only notable issue came from one of the two injection protection collimators (TDI8) that affected operation at injection throughout 2015. For 2016, both TDIs will be equipped with copper coated graphite jaws (instead of titanium coated hexahedral boron nitride jaws), which are expected to mitigate these issues. Monitoring and follow-up of beam induced heating will continue - in particular for injection kickers - but no showstoppers are so far expected with the beam parameters planned for Run 2. One should of course watch out for the non-conformities. <P>

Presenter: SALVANT, Benoit

Session Classification: Session 2: Key Challenges for Operation

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