LHC Injectors Upgrade Workshop



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Transverse beam quality and stability in the SPS (protons and ions)

Thursday 14 February 2019 08:30 (30 minutes)

- Keywords: SPS transverse stability, electron cloud, emittance growth, optics
- Questions to be answered:
 - What has been learned from acceleration LIU-like intensity in the SPS, in particular with short bunch trains?
 - What are the operational challenges with large tune shifts?
 - Which are pros and cons of the possible optics Q20 versus 22 versus 26 (for protons and ions)?
 - What do we know about transverse stability for high intensity beams?
 - What is the transverse emittance growth as a function of bunch intensity (also for ions)?
 - How complete is the transverse impedance model?
 - Where do we stand with the removal of momentum bottlenecks?
 - Can we rely on scrubbing for post-LIU operation? To which extent?
 - What is the experience with ions in 2018?

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Session Classification: Session 1: LIU beam performance