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Protons: Baseline and Alternatives, Studies Plan

Wednesday, 24 September 2014 09:40 (30 minutes)

This talk will focus on the injector improvements and upgrades foreseen within the LIU project as well as the expected benefits in terms of proton beam characteristics resulting from their implementation. The roadmap of the main upgrades will be illustrated, with special emphasis on the machine studies and milestones during Run 2 that will have an impact on it. In this framework, a strategy to choose between scrubbing and a-–C coating of the SPS will be also presented and discussed. The performances of the full injector chain will be estimated for both Run 2 and operation after LS2. For this purpose, we will review not only the possible physics production beams, but also: 1) beams needed for electron cloud enhancement and efficient LHC scrubbing (doublets); 2) extra-– bright 25 ns beams produced with the pure batch compression scheme; 3) 8b+4e beams, which have the advantage of allowing for higher bunch current while potentially reducing the electron cloud build up.

Presenter: RUMOLO, Giovanni

Session Classification: Session 5 - LIU

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