

Review of LHC and Injector Upgrade Plans Workshop (RLIUP)



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50 ns back-up scenario (30'+10')

Wednesday 30 October 2013 17:30 (40 minutes)

Abstract:

The baseline bunch spacing for LHC high luminosity proton-proton operation after LS1 is 25 ns to maximize the integrated luminosity while keeping pile-up low. The success of this mode of operation is not guaranteed. Electron cloud, UFOs, long-range beam-beam, heating and other effects might make 25 ns operation in the LHC and/or the injectors difficult. This talk will review possible show-stoppers in the LHC and injectors for 25 ns operation and discuss possible remedies such as coating in the SPS. An alternative would be re-considering 50 ns operation. A possible way of how to operate with 50 ns taking pile-up limits and integrated luminosity goals for the different upgrade scenarios into account will be presented. The question of when to decide at the latest between 25 ns and 50 ns to upgrade hardware accordingly will also be addressed.

Presenter: Dr KAIN, Verena (CERN)

Session Classification: Session 4 - Upgrade scenario 2 (decoupled from scenario 1)