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LIU: Exploring alternative ideas (20' + 10')

Wednesday 30 October 2013 16:30 (30 minutes)

Abstract:

The baseline upgrade scenarios for the injector complex cover the connection of Linac4 to the PSB, the increase of the PSB-PS transfer energy from 1.4 GeV to 2 GeV and the major SPS RF upgrade during LS2. The achievable beam characteristics will nonetheless remain below the expectation of the HL-LHC project. Therefore, alternative or additional options like, e.g., special bunch distribution, the use of injection optics optimized for high space charge or extra RF systems will be discussed. The expected beam parameters, possible implementation and impact on beam availability for these more exotic options will be analysed and compared to the LIU baseline plan. Moreover, the potential interest of further batch compression schemes will be evaluated.

Presenter: DAMERAU, Heiko (CERN)

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