

Status of the machine studies

LIS meeting, 20/10/08

1) Transverse feedback in the PS (A. Blas)

- Good results discussed.
- Some more time will be taken in parallel.

2) Study of the wide-band transverse SPS PU BPWA 319.01 (W. Hofle)

- I think this still has to be continued.

3) Controlled transverse emittance blow-up in the SPS (E. Métral)

- The objective has been reached, on the single-bunch LHCPROBE beam:
 - At 450 GeV/c, $\sigma_{\text{max}} = 0.7 \text{ mm} \Rightarrow \text{NormRmsEx} = 3.5 \text{ micrometers}$ ($4\sigma_{\text{max}} = 1\text{ns}$ and $\sigma_{\text{mapsurp}} = 1.7\text{E-}4$).
 - At 450 GeV/c, $\sigma_{\text{y}} = 0.58 \text{ mm} \Rightarrow \text{NormRmsEy} = 3.2 \text{ micrometers}$.
 - Reminder: The initial horizontal and vertical emittances were 1.3 and 0.9 respectively.
- The next step is to redo this next Friday 24/10, using a multi-bunch beam: the 72 bunches of the PS nominal LHC25 cycle at 10% intensity.