p-Pb MD plans

J.M. Jowett, R. Alemany, P. Baudrenghien, R. Versteegen and many others

Preliminaries?

RF rephasing test with protons, P. Baudrenghien
Radial loops for two p beams separately, R. Steinhagen

MD Block 4, November 2011

- Establish circulating Pb as Beam 2 (1 bunch).
- Establish circulating p as Beam 1 with 100 ns filling scheme, 10% of Nominal bunch intensity.
- Separate RF frequencies in the two rings.
- Inject one Pb bunch into Beam 2, measure many beam parameters, especially lifetime, emittance.
- Study measures (transverse damper, tune changes, etc) to deal with any intensity limits, emittance blow-ups, etc.
- If time, attempt ramp of Pb.
- If still time, attempt ramp of two beams with unlocked RF systems.
- Dump (no squeeze or collisions).
- If even more time, repeat with higher p intensity, possibly more Pb bunches.

After MD Block 4

- Ion beam setup of 4-6 Nov
 - Inject, ramp, squeeze for Pb-Pb physics
- Technical Stop
 - Discuss, adapt plans, no. of bunches, etc.
- Feasibility test p-Pb in week of 14 Nov
 - Inject and ramp both beams
 - Rephase RF for proper collision points
 - Squeeze, collide (probably another fill)