**Floating MD – 24/08/2010 - Summary**

**BBLR studies at SPS**

- Beam parameters: 12 bunches, 25 ns bunch spacing, Nb=~5.1010 ppb

- Cycle parameters: 31.2 s cycle length, 6 s flat top at 55 GeV in pulsed mode.

1) We measured and adjust tunes to the working point (0.31,0.32) in no excitation, compensation and compensation after the displacement of the wires.

2) Taking in consideration the measured emmitances (Nx=1.175 m, Ny=1.22 m) we decided to **simulate 2 IPs at ultimate intensity** (Nb=1.7 1011 ppb), i.e. 60 encounters (30 per IP). Using a scaling law we set the current of the wires to 195 A.

3) We had 6 coasts during the MD. We were exploring mainly the deviation from WP (possible resonances), excitation mode, compensation mode, polarity switch in the wires and emittance growth.

**Next MD**

🡪 We need to **understand better the compensation mode** at this energy since we observe that the losses are still too big when both wires are on. Beam lifetimes are still to be well calculated but they don’t look so promising for our purposes.

🡪 We need also to make **further studies on the emittance evolution** during a coast since it is still not so well understood.

🡪 We need to **measure and correct the tune during the coast**.

🡪 We need to **spend more time on the positioning of the wires** at the final closed orbit.