Status of the machine studies

MSWG meeting, 05/06/09

1) Test the robustness of the LHCb detector by sending beams with a gradual intensity growth towards the VELO experiment at the end of the Booster measurement line (D. Allen on the accelerator side and M. Ferro-Luzzi on the experiment side)

- MD sessions so far took place on 06, 09, 10, 11, 12 May 2009.
- The conditions were 1 MDPSB cycle per Supercycle with no possibility of any other beam being sent to the Booster beam dump.
- Not really any problems encountered from the accelerator side. Only, the fact that no damage or degradation has been seen at the detector! Intensities of 2.5E9, 2E10, 2E11 & 2E12 have been delivered to the VELO experiment without any apparent damage or degradation to the detector.
- Next steps: Deliver a factor 5 higher intensity than previously, i.e. 1E13, the highest intensity available on a single ring, to the VELO experiment. Thereafter, the intention would be to try with some intermediate intensities, possibly at different positions on the detector.
- New requirements: More MD time necessary. MD sessions were supposed to take place on the evenings of 22, 23, 24 May, but it was not possible due to the Septum breakdown on the Booster.

2) General information (E. Metral)

- The 1st MD planning meeting took place on 03/06/09 (https://ab-mgt-md-users.web.cern.ch/ab-mgt-md-users/2009/MinutesOf1stMDPlanningMeeting.htm), to discuss the planning of the next weeks in more detail.
- On Thursday 18/06, there will be an access in the SPS in LSS5 to change and re-adjust the quartz for the crystal experiment (vacuum has to be broken). During this time, 2 other accesses will take place: LSS2 (work on the ZS5) and LSS6 (endoscopy of the dipole 6.2130 as a hot spot was found there => Vacuum has to be broken here also).
- It should be noted that the MKDV1 is outgassing in the SPS when the intensity for CNGS is increased, and particularly when the PS spill is not optimized (i.e. when there are spikes).
- The commissioning of the new application for the wire scanners in the different machines is taking place. It starts to give reasonable results but a lot of things still need to be done.
- The beams are ready in the injector chain for the TI8 tests of this week-end.