<table>
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<th>Presentation</th>
<th>Discussion</th>
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<td>News (Silvia, Michel)</td>
<td>A recipe was presented how to run Brunel in the (forseen) 2015 configuration. Everybody is invited to check this.</td>
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| Multiple Scattering Correction (Miriam) | The MS correction used in LHCb is wrong, as it violates the additivity of the variance due to the logarithmic term. The additivity is needed when summing up the effect of a track traversing multiple layers of material. A new MS model was presented, which is linear and shows better pulls for the extrapolation in x, y, tx and ty. Also the momentum pulls are improved. The prob-chi2 is less flat than with the old correction, the rest of the observables shows an improvement. Open points:  
  • Understand how the pulls for x, y, tx and ty are obtained.  
  • Why are the prob-chi2 distributions less flat and sometimes show a very different behaviour than with the old parametrisation? |
| New Chi2 for downstream tracking (Adam) | A new implementation of the chi2-calcuation in the downstream algorithm of the upgrade was presented. It uses a different extrapolation than the old algorithm and also fits for the y-slope of the track. The resulting chi2 looks like it would have a good discrimination power between good tracks and ghost tracks. The implementation in Brunel however shows a low efficiency at the moment.  
  • Understand why the performance is so poor when implemented in Brunel.  
  • Why does the chi2 have such long tails. |
| New PV for Flavour Tagging (Julian Wishahi) | The effect of the new PV reconstruction was tested for the flavour tagging. No significant difference was observed. |
| New PV in B&Q (Bo, Sevda)             | The effect of the new PV reconstruction was tested for J/psi -> mu mu events. The old PV and the new with Velo+Forward tracks show identical results, the results for Velo only tracks are different for the pseudo-lifetime and the IP-Chi2 for prompt J/psis. Furthermore there are 0.2% less events with the new PV reco than with the old one and more with nPV = 0. |
Open points:

- Where does the nPV = 0 effect come from?
- Is the effect of the radial cut seen?
- Why is this result different from what other groups have shown?

| IP resolution with LiteClusters / simplified geometry (Michael) | New studies about the effect of using liteClusters and the simplifiedGeometry (in the Velo) were presented. There is no difference in the IP resolution using liteClusters and the simplifiedGeometry. Less material is transferred from the point of origin to the first sensor in the Velo for the simplified geometry, which is most likely due to a non-updated simplifiedGeometry. There are small differences for the IP pulls for high eta and parts in phi, and the chi2/DoF is larger when using LiteClusters.

  - Check status of simplified Geometry. Can we implement the latest RF-foil description, and remove the aerogel in the RICH?
  - Where does the increase in the chi2 come from? Is there a different error parametrisation in the ST detectors? |