

CDF/D0/AD Luminosity meeting

Action Items

July 13 2004
All

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Action Items

- ❖ A lot of relevant and very useful information was discussed during this meeting. It is now appropriate to form a small group of 3-6 people from the experiments and AD who will organize and explore the available information, collect additional relevant information and suggest studies that both AD and the two experiments can perform to shed more light into the puzzle. We plan to have in this group 1 or 2 colleagues from CDF, D0 and AD.
- ❖ Add appropriate uncertainties to the CDF, D0 and AD measurements to quantify better the level of the discrepancy.

Action Items – cont.

- ❖ Measure beta functions on the pbar helix.
- ❖ Switch off one ion-pump (increase vacuum pressure at one or both IRs) and study the effect this has on the luminosity ratio.
- ❖ Continue Saul's study on measuring the bunch by bunch CDF/D0 ratio as a function of luminosity and comparing it with the corresponding ratio averaged over bunches.

Action Items – cont.

- ❖ Compare the AD calculated luminosity with the measured luminosities not only at low beta as it was shown in this meeting by Carl and Vaia but at other points during the store as well. We already have in our hands another point since there is a Flying Wire emittance measurement at the End of HEP. We can calculate the luminosity there and compare with the experiments. We could in addition perform a study where during a store we fly the wires every couple of hours to get the emittance and therefore the calculated luminosity. This needs to be coordinated with the experiments.