Minutes of the 210th Energy Calibration Meeting held on 18 May 2001

1 MBI re-mapping

Federico Roncarolo gave an update on the mapping and mapping analysis.

Sufficient data have now been taken to derive a temperature model. The found value of the effective coefficient is consistent with that fitted to the ISR data.

Fits to the new data show residuals which are reasonably flat, rather than having the banana shape of the ISR data fits. The DAQ of the present campaign, however, reads out type 1 probes exclusively at low energy, and type 2 probes at high energy, whereas for the ISR all available locked readings were recorded. By masking some of the ISR data and refitting, Federico will ascertain whether these different intervals are the reason for the change in shape of residuals between the two campaigns.

There is still an offset between the present intervals and the ISR intervals of a few 10^{-5}. Comparing the ratio of high energy to low energy field integrals of the present data, to that predicted by the fit to the ISR model gives an offset of $\sim 3 \times 10^{-5}$. This is in principle the maximum systematic error any shift in magnet behaviour will induce on the energy measurement. However this comparison does not include all features of the ISR model (temperature behaviour, offset correction etc). Federico agreed to repeat this study with these included.

2 BPM behaviour

Bernd Dehning mentioned that the anomalous value of the absolute gain coming from a comparison with the WPS during a BPM motor scan, as reported in the last meeting, had been due to a misunderstanding of what was plotted. There is no big discrepancy with the expected value. He will analyse the data carefully and report back the exact result.

Guy Wilkinson showed a preliminary analysis of the BPM gains from fill 7129. He sees the shifts in triplet residuals reported by other analyses. A potentially interesting observation is that these shifts disappear if different offsets are allowed for each energy point, but a common set of gains are fitted.

3 Any other business

Farewell and thanks to Eric Torrence, who is returning to the US after many years of hard work within the group. Following the meeting a convivial lunch was enjoyed at the Hotel de France, Ferney Voltaire.

4 Next meeting

To be announced.

Guy Wilkinson, 18 May 2001.