Minutes of the 208th Energy Calibration Meeting held on 6 April 2001

1 MBI re-mapping

Federico Roncarolo summarised the work of the mapping team. The mapping is now well underway, with data taken at 42 GeV and 90 GeV (including consecutive maps with ramps in between).

Federico showed hall probe data. In the mu-metal a very small constant residual field is expected. The data however show an offset which appears to drift linearly with time. This drift can also be seen in the comparison between the hall probes and the NMR. The offset can be corrected map by map by forcing the offset to agree with the residual field as measured by the flux gate. This improves significantly the consistency of all the data.

Such behaviour was seen in the original ISR mapping, where it was corrected in a similar manner. Then a further gain correction was applied to constrain the hall probe field to that of the NMRs in the overlap region. Federico has not yet tried such a correction.

Federico has calculated the residuals of the field integral with respect to the fit prediction, using the fit parameters as derived in the ISR mapping. These give a very flat distribution with little scatter ($\sim 1 \times 10^{-5}$); but one with a 1×10^{-4} offset. This offset is not yet understood. Federico intends to study the relative readings of the reference probes and compare these with what was observed in the ISR and in the LEP tunnel.

2 BPM and sawtooth analysis

Bernd Dehning showed an update to the work of Esther Barbero-Soto and himself on the changes in the BPM triplet residuals in the ramps to high energy. They have now calculated a 'statistical' error for each triplet shift. In some cases this error is rather large, indicated that the time at which the triplet and bend angle analysis has been performed is not optimal. They are therefore readjusting the selection of these analysis windows and have already improved the stability of the analysis.

Bernd has also had a first look at the new sawtooth corrections as recently provided by Joerg Wenninger for the 1999 data. He has compared these with the default set which came from Mike Hildreth. There are significant differences.

3 Spectrometer Book-keeping

Esther Barbero-Soto has read through the logbooks once more and produced a definitive list of all spectrometer fills in 2000. These are included in the minutes.

4 CERN seminar rehearsal

There will be a W physics CERN seminar on the afternoon of Tuesday 24 April. The organisers have requested a report on the energy calibration. Eric Torrence will give this report. Eric showed to the meeting a few of the slides he intended to show. He will give a formal rehearsal this coming Thursday (12 April), at 10am.

5 Next meeting

Friday 20 April at 14:00.

Guy Wilkinson, 7 April 2001.