Minutes of the 220th Energy Calibration Meeting held on 30 August 2002

Present: Bernd Dehning, Pete Renton (by phone), Eric Torrence (by phone), Jorg Wenninger, Guy Wilkinson

The meeting discussed the first draft of the LEP 2 energy paper. This contained first versions of the NMR/flux loop, spectrometer apparatus, spectrometer analysis and Q_s sections.

1 NMR / flux loop

The meeting decided this material would be better split into 2 sections.

As ever the big problem lies in justifying the error assignment for the flux loop. A new suggestion was to exploit the difference between flux loop and polarisation residuals in the 40–60 GeV region. Pete will investigate this. Pete and Guy will also research what was written up about the flux loop precision in the early days of LEP 1.

2 Spectrometer

Eric has provided some parts of the apparatus/overview section, but more is expected. He was worried about how much detail to include. The meeting considered the level about right in the parts he had provided. He will leave the sawtooth discussion for Jorg to tackle in a later draft.

The analysis section is essentially complete. For the systematic errors, work is still required to evaluate that contribution coming from beam size/BPM effects. Guy is pursuing this with John Matheson (simulation), Jorg (orbit information) and Bernd (alignment information/motor scans).

Other outstanding items include the analysis of the intermediate energy data, at 70 and 80 GeV, and the analysis of the 1999 data.

3 Q_s Analysis

Anke, (presently on vacation prior to starting new job in Karlsruhe) has re-analysed all the Q_s data using the NMR model values provided by Guy, and making a criticial re-evaluation of many of the errors, in particular the inverse bending radius. The result is a number consistent with the magnetic extrapolation with a significantly improved error to previously. This is all detailed in a first draft of the section provided by Anke.

The meeting was delighted with the progress. There was a request, however, for additional information to be provided in the draft. In particular on data sets, procedure and error assignment.

4 Next meeting

The morning of Friday 18 October or Monday 21 October - to be confirmed.

Guy Wilkinson, 10 September 2002.