Minutes of the 145th Energy Calibration Meeting held on 5 December 1997

1 Status of the 1993–1995 Paper

Tiziano Camporesi reviewed recent changes to the paper and comments on the final draft. After some discussion of availability it was decided to have a two part reading:

- First part at 14:30 on Friday 12 December (note the start time, which is later than originally planned). The aim of this meeting will be to synthesize comments already received and produce one annotated copy.
- Second part on 18 or 19 December to be announced.

Peter Renton then raised some questions about use of the error matrices for the experiments own results and for combining LEP results. His proposal will be sent to Bob Clare for circulation and discussion within the electroweak working group.

2 Comparison of NMR and Epol

Guy Wilkinson showed a new look at the NMR and polarisation data, fitting a slope and an offset to fills with more than two energy points so that the slopes can be directly compared with the NMR flux-loop fits made by Joerg Wenninger.

The offsets show a large scatter, positive and negative, with size up to 100 MeV. The residuals w.r.t. the fitted line are reduced as would be expected for using up an additional degree of freedom. The shape of points about the fitted line is a “banana”, and is reproduced from probe to probe so that the average of the residuals has a significant shape.

3 Opposite Sign Dispersion in 1997

Alfons Weber reviewed the analysis of opposite sign vertical dispersion in 1997. In the bunch train set up, beam offsets at the collision point can cause a shift in the centre of mass energy due to opposite sign dispersion. The dispersions have been calculated (by Joerg Wenninger using MAD) for all the configurations in 1997. They agree to within about 50% with the measured values, and this is the largest cause of uncertainty in the possible error correction. Beam offsets have again been controlled by beam-beam deflection scans. The luminosity weighted correction to the centre of mass energies are typically 1 to 2 MeV, with an error of about 2 MeV.

4 Next Meeting

As announced above, there will be paper discussions in December. The next meeting of the working group will be on Friday 9 January 1998 at 14:00 in the Pavillon.

Pippa Wells, 9 December 1997