MINUTES OF THE 120th MEETING OF THE ENERGY CALIBRATION WORKING GROUP (part related to 93/94/95 energies)

held at CERN on February 14, 1997

Revisiting the 1992-93-94 multiple calibrations fills (A.Drees)

Angelika revisited the old MD's with several res. depol. measurements lasting for more than 4 hours. While the old 1992 tide experiemtn look difficult to interpret due to lack of available info the 1993 and 1994 MD's can be dealt with within the new models of dipole behaviour.

The major issue raised by this re-analysis is that the reference NMR (the NMR in the ref erence magnet) information seems to play a key role in the understanding of some of the experiments. IN particular one of the tide experiments shows disagreement wrt the usual tide model if one neglects the NMR REF correction.

Angelika is going to study the correaltions between the NMR in the tunnels and the REF NMR in the 1995 data to see if some common trend can be found. To date we tend to consider negligible the drifts in the dipole field due to cause other than temperature and/or parasitic currents on the LEP beam pipe: a more detailed study is needed to understand if there is also a contribution linked to the main power supply.

Energy file production and checks on the 1995 BOF-EOF fills (M.Koratzinos)

The test version of the 1994 file is also available now.

He has discovered that three files show an abnormal rise during physics time as if there had been a bending modulation in the middle of the fill: they might worsen the 2D model for the dipole field drifts.

It is also clear that the present 2D2T model gives a rather large average residual when compared to the measurements of the energy rise in the 6 BOF_EOF fills (1.6 Mev with an rms of 1.2 MeV).

This offset is not present when using the NMR48 data directly(see P.Renton report at last meeting). If confirmed these effects might force us to use directly the NMR48 data for 1995 rather than use it only to tune the 2D model.

Mike has set a standard on the way to present model results in a transparent way (one column for each individual model contribution) which if followed by everybody will allow a speedy comparison between the various analysis (see copy of transparencies)

Next meeting Feb. 21th at a time to be decided

Scriba:Tiziano Camporesi