

Minutes of the 3rd ILC Meeting DESY Hamburg, January 7th, 2005

Agenda

- General Announcements
- EUROTeV Status - E Elsen
- The E166 Experiment - R Pöschl

General Announcements (N Walker)

Happy New Year to the ILC group - a year that promises to be eventful and important for the Linear Collider.

The 2nd ILC Workshop will be held at Snowmass, July 14-27, 2005. It is meant as a true workshop (actual work being done). It coincides with the ALCPG Workshop that is held at the same place and time, intentionally. The DESY participants for these meetings should soon be sorted out.

Status EUROTeV (E Elsen)

The consolidated budget of EUROTeV now amounts to 28.8 MEur, 9 MEur of which are expected from the EU. EUROTeV now comprises 22 institutions, i.e. 25 institutes and 3 associated institutes.

Annex I (to the contract between the EU and the institutions involved) has been accepted by the EU officer in charge. The procurement of the signatures of the institutes is under way. If all proceeds smoothly the signature from the EU can be obtained in February so that - in principle - the first EU grant could arrive at DESY end February (fingers kept crossed).

For DESY, 6 positions have been advertised; the deadline for submission of applications was Jan 2, 2005. The return has been good and draws candidates from both fields, particle physics and machine physics. Selection is to commence soon.

Concerning future support the EU is setting up FP7, for which currently a two fold approach is being proposed. An open call for proposals with subsequent peer review (bottom-up approach) and a new strategic approach in which starting from a roadmap for priority projects an operational mechanism for the implementation will be proposed. The roadmap will be developed by ESFRI. The EU feels some responsibility for "large scale projects".

The E166-Experiment (R Pöschl)

The E166 experiment will explore the production of polarised positrons. It employs the 50 GeV SLAC beam run through a 0.9 mm diameter undulator of 1 m length and a thin target for production of polarised positrons at <10 MeV. Key objectives of the experiment are to show the production of polarised photons, verify the transfer of polarisation in the $0.5 X_0$ photon target and measure the degree of polarisation of low energy positrons in a magnetised iron transmission analyser. The magnetisation of the iron is derived from the measurement of the induced voltage as a function of the coil current. The generated positrons are momentum selected. 10^{10} undulator photons are expected to yield some 1000 reconverted photons in the CsI calorimeter. The performance of the whole setup has been optimised using a GEANT simulation. Longitudinal polarisation is currently being implemented in GEANT 4 (K Laihem).

The E166 collaboration consists of roughly 50 physicists from several institutions. DESY is largely responsible for the polarimetry. The CsI calorimeter has been built by DESY-Zeuthen and Humboldt University, the analyser magnets for the photon and positron lines have been built by DESY in collaboration with St. Petersburg.

E166 had been scheduled for two 4-week-periods of data taking. The first period in October 2004 was foreseen to check out detectors, to establish stable beam operation, to assess backgrounds and to align the equipment. Only one day was available to record noise spectra in the calorimeter before the accelerator complex was shut down following the 10/11 accident at SLAC. Accelerators only now start to resume operation. However, no new runs have been scheduled for E166 at this time.