

Stefan Schmitt, POL2000 group

PRC closed session

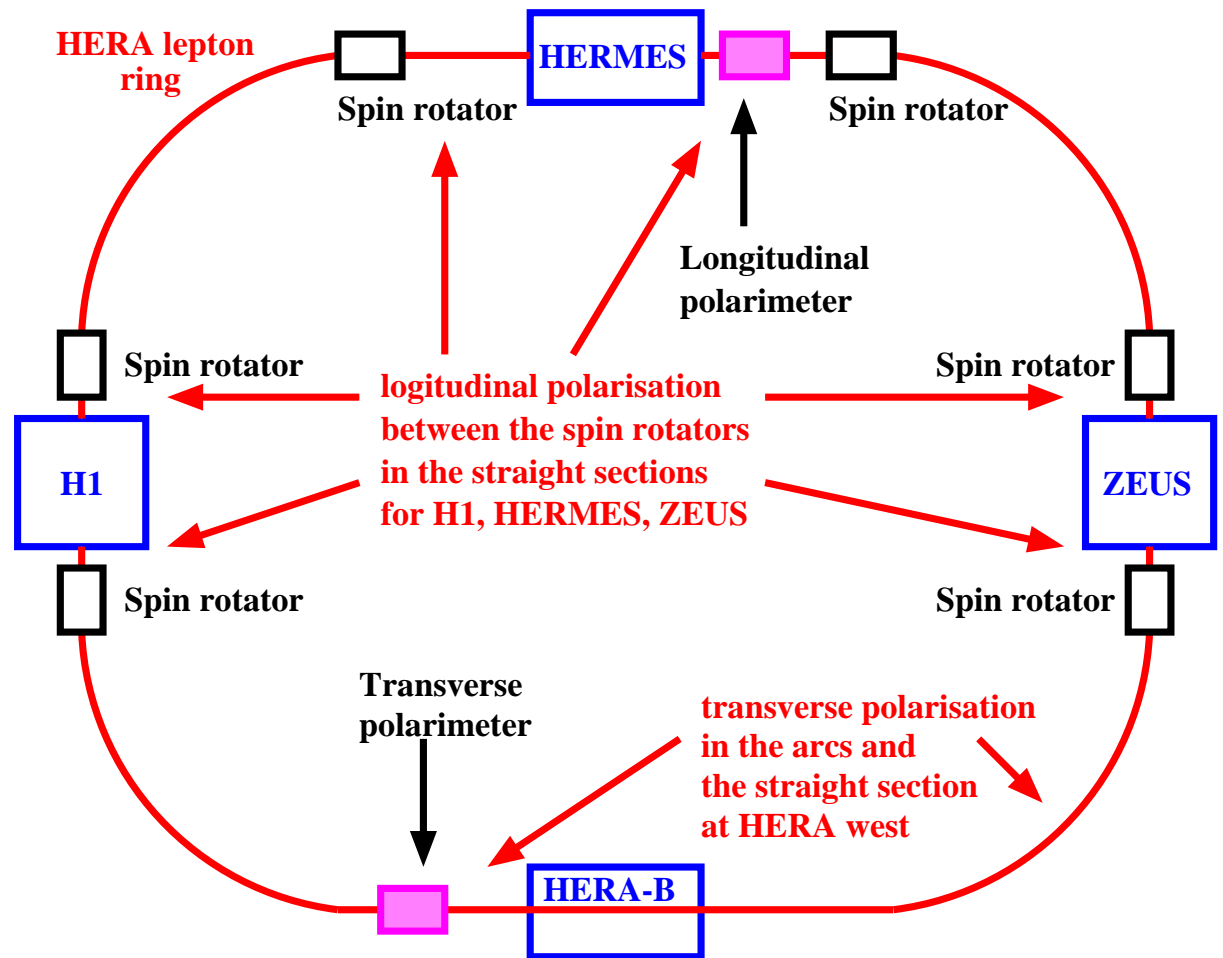
October 30, 2002

The HERA polarimeters status report

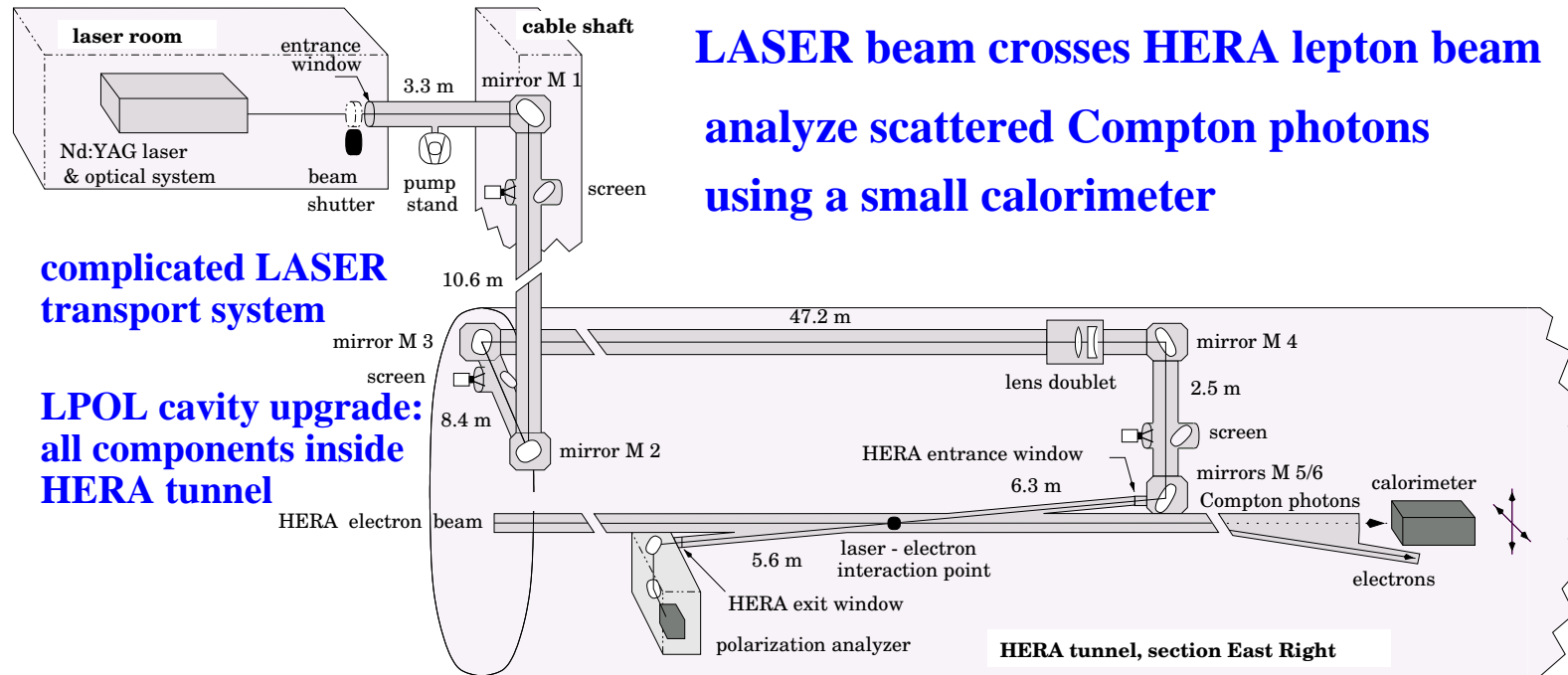
- Polarimeter status
- LPOL cavity upgrade project (talk by Marie Jacquet)
- POL2000 referee report (talk by Emlyn Hughes)

Polarisation and polarimeters at HERA

- Transverse polarimeter (TPOL) is located near HERA-B
- Longitudinal polarimeter (LPOL) is located between HERMES spin rotator



Polarimeter setup (LPOL)

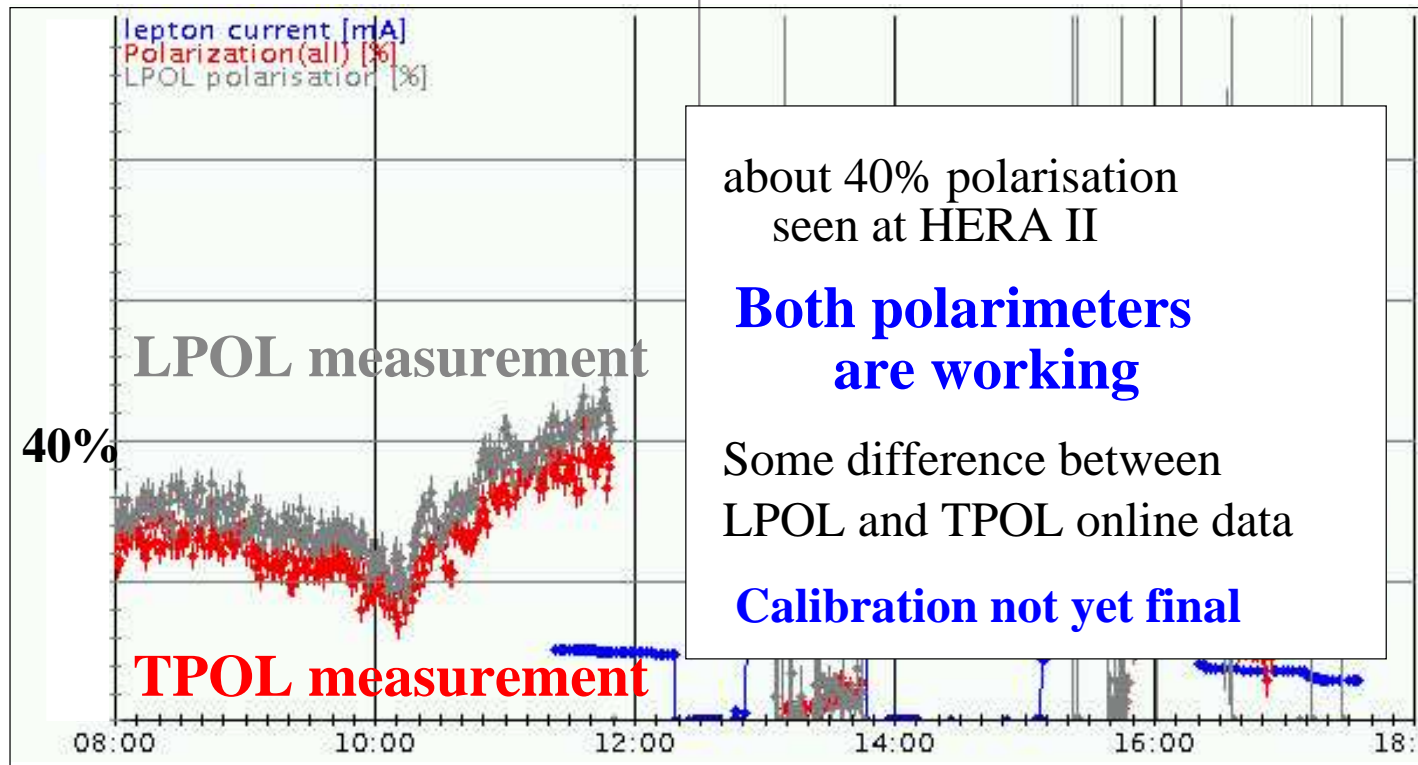


LPOL: measure energy asymmetry for left/right LASER helicity

TPOL: measure spatial asymmetry for left/right LASER helicity

Polarimeter status

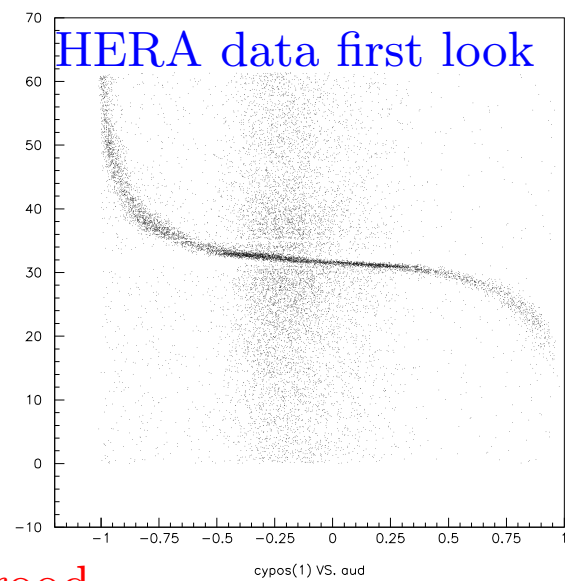
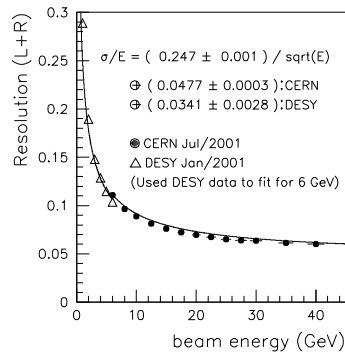
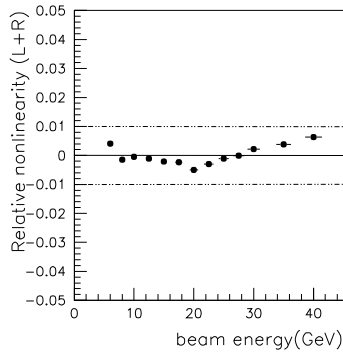
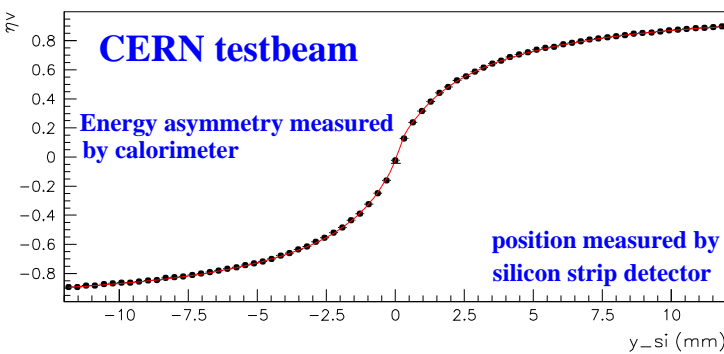
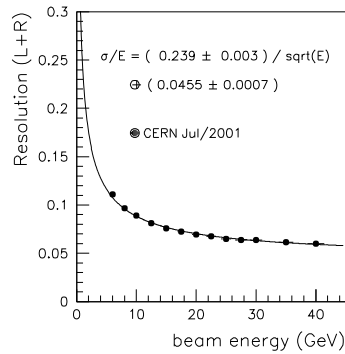
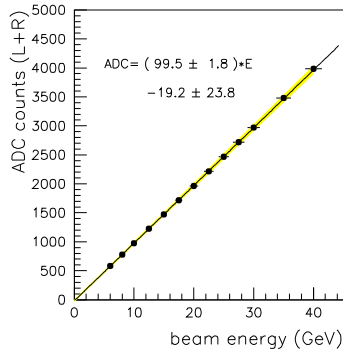
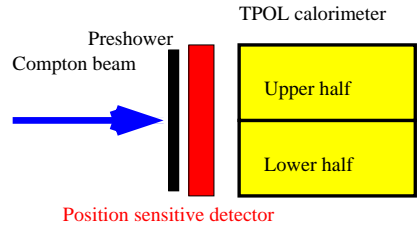
Polarimeter online display



Polarimeter status summary

- LPOL
 - No hardware changes since year 2000 running
 - Measurement at currents smaller than 10 mA is difficult
 - LPOL laser support ends after 2003 → LPOL cavity
- TPOL
 - New ADC and readout: everything working well
 - Offline-analysis: online-numbers seem to be ok
 - Silicon detector to support calibration: analysis ongoing
 - Shutdown work (silicon): add cooling and HERA clock synchronisation, replace silicon detector (bad pitch adapter)
- LPOL/TPOL Cross-calibration:
need $P > 30\%$, $I > 15$ mA stable beam for several hours

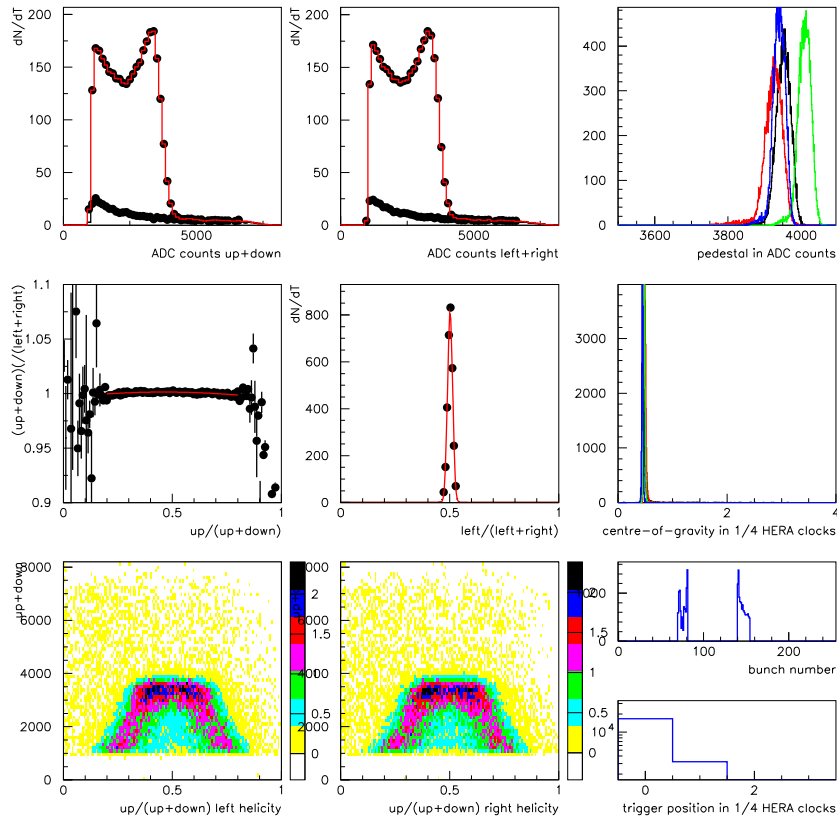
TPOL silicon detector



CERN and DESY testbeam results:
 Calorimeter response confirmed
 $\eta - y$ transformation determined
 First results from HERA beam look good

TPOL online histograms

2002/10/29 10.20



- View TPOL control plots online <http://pctpol03.desy.de>
- Check calibration, timing, ...
- Very useful for identifying problems