

## **HERA Polarimeter Operation in 1995,**

**N. MEYNER**S, D. BARBER, H.D. BREMER,  
E. GIANFELICE-WENDT, A. HILGERS,  
T. LIMBERG, K.P. SCHÜLER, DESY;  
K. MCILHANY, CALTECH; M. KIRSCH,  
ERLANGEN; M. BECKMANN, H. FISCHER,  
M. RUH, FREIBURG; W. BRÜCKNER,  
PH. OELWEIN, MPI-HEIDELBERG; F. ZETSCHÉ,  
HAMBURG; O. HÄUSSER, TRIUMF; S. BARROW,  
T. FORTUNE, W. LORENZON, S. RUDNITSKY,  
M. SPENGOS<sup>1</sup>, PENNSYLVANIA;  
V. GHARIBYAN, YEREVAN - In 1995 HERA

routinely delivered polarized positron beam for the HERMES experiment. The beam polarization was measured with a transverse Compton polarimeter. A pair of spin rotators provided longitudinal spin polarization at the experiment. The value of the polarization during HERMES data taking varied between 45% and 60%, with maximum values close to 70% observed. During the running period the polarimeter was operational 90% of the time. The beam polarization was measured every minute with a statistical error from 2% to 4%. The precision of the beam polarization measurement is of great importance for the HERMES experiment since the error propagates directly into the physics results of interest. Measurements of the polarization build-up time, in combination with Monte Carlo studies and the off-line analysis of the data acquired, indicate that the relative systematic error of the polarization was approximately 5%. For the 1996 run both statistical and systematic uncertainties are expected to improve.

1 Now at DESY.