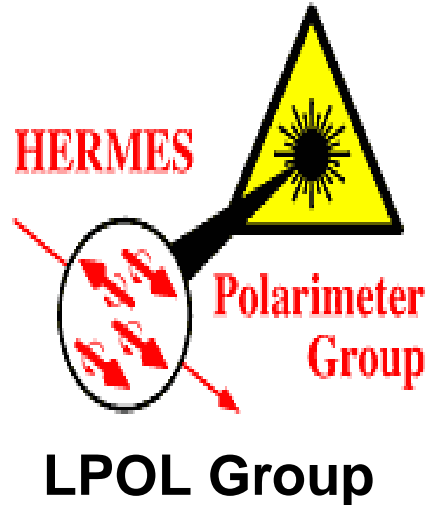


LPOL Polarimeter: Luminosity Scan

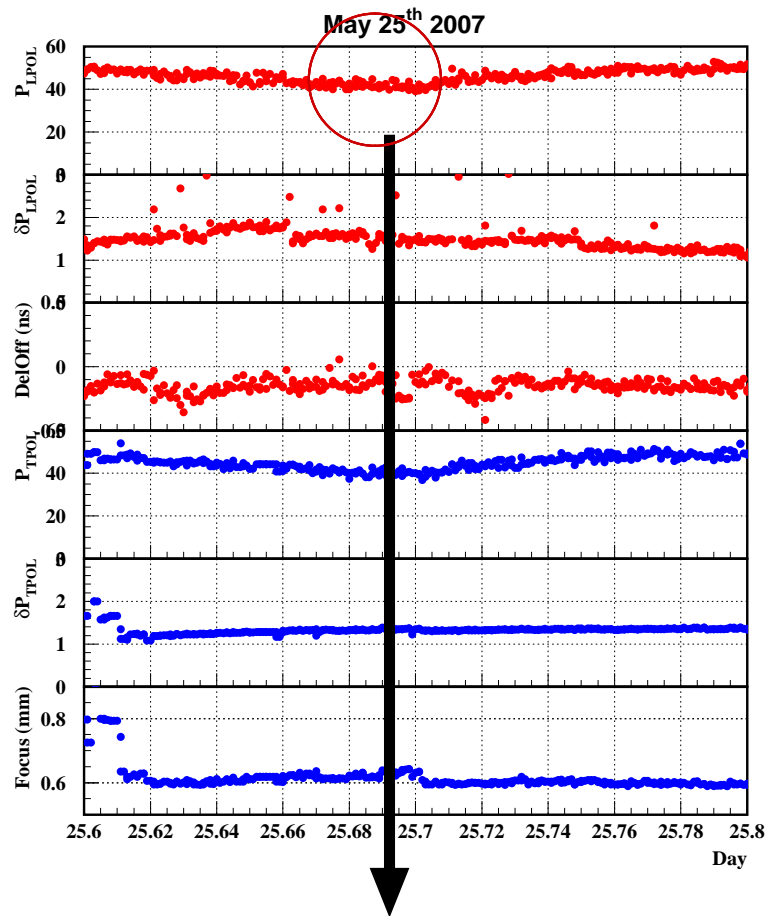
**Riccardo Fabbri
(DESY-Hamburg)**



Luminosity Scan

- ➡ Luminosity scans performed during end of HERA running (2007)
- ➡ Differently from test beam, environment during measurements rapidly changes
 - ⇒ limits statistical precision of measurement points
- ➡ Varying laser attenuating factor (via optical device)
- ➡ Only periods with relatively stable machine/detectors considered:
 - ⇒ to avoid effects external to detector linearity

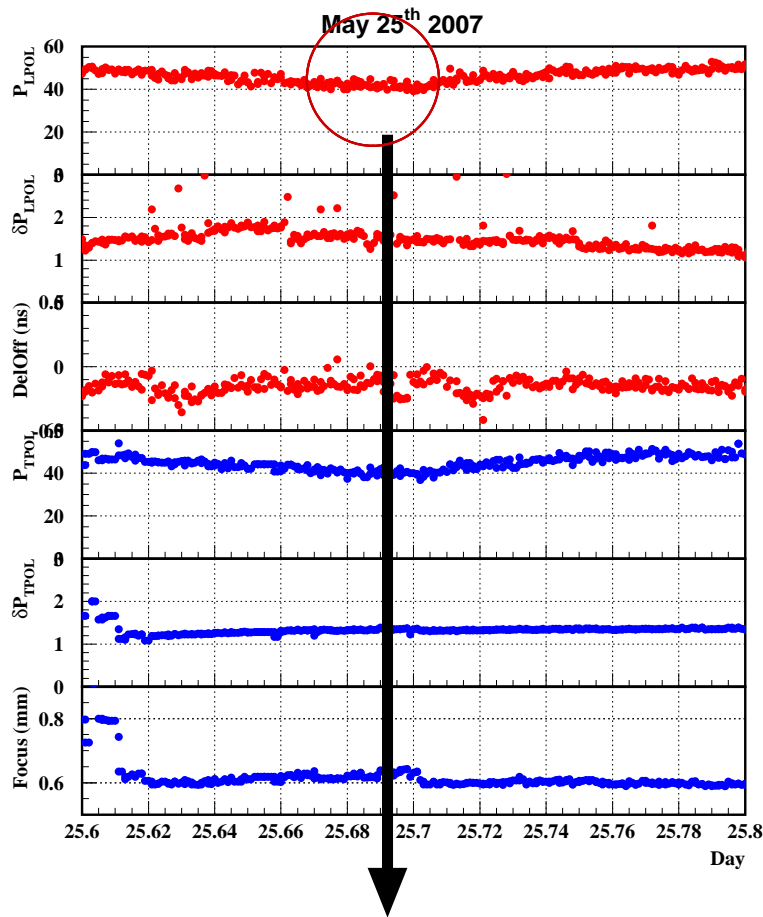
Luminosity Scan



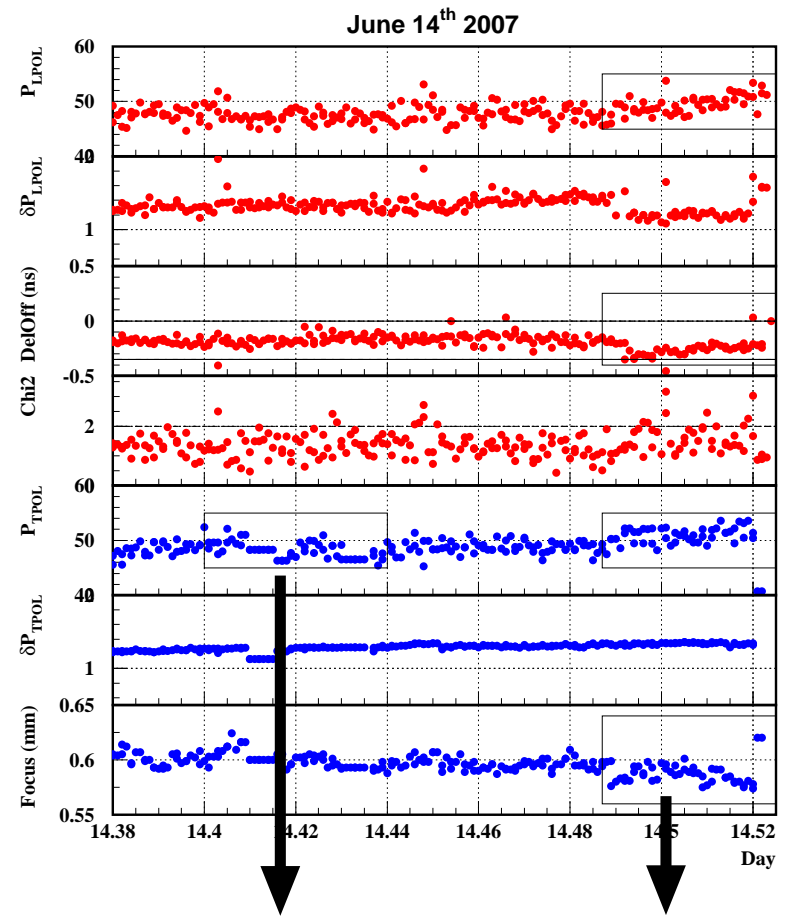
Change in machine configuration:

⇒ two periods considered separately

Luminosity Scan

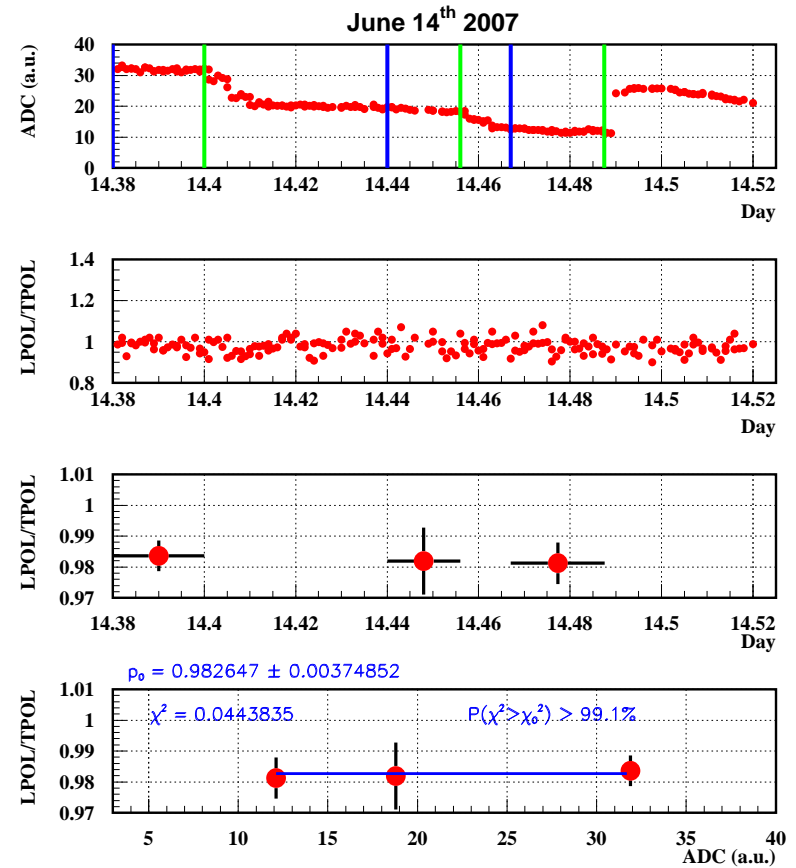
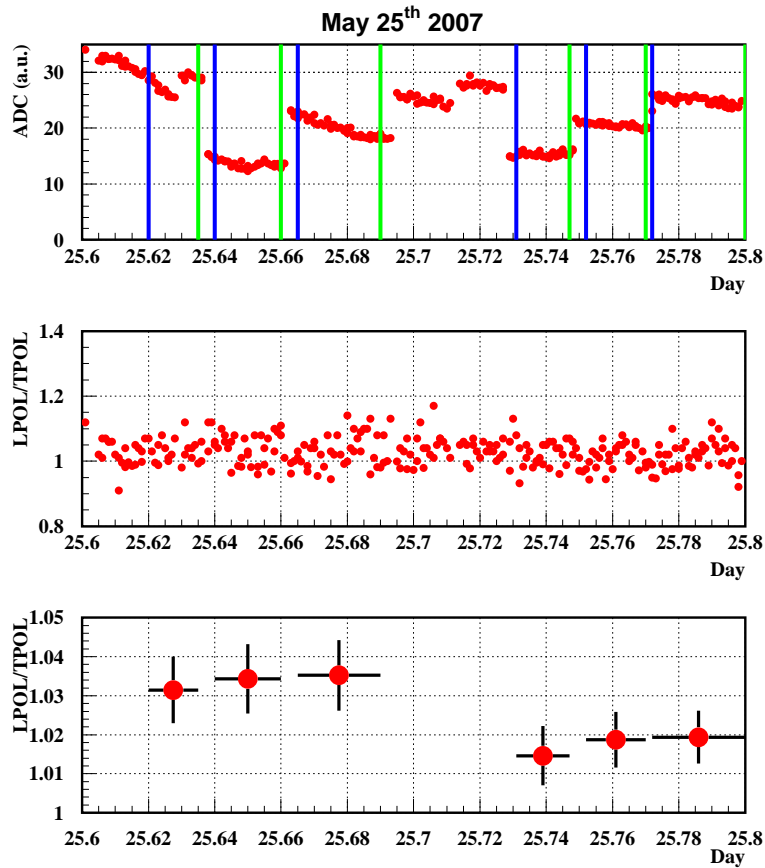


Change in machine configuration:
 \implies two periods considered separately



Detector instability + beam config change:
 \implies skip these periods

Luminosity Scan



☞ Detector linear over wide range (within present measurement accuracy)

⇒ Good linearity does not exclude a priori possible hardware problems