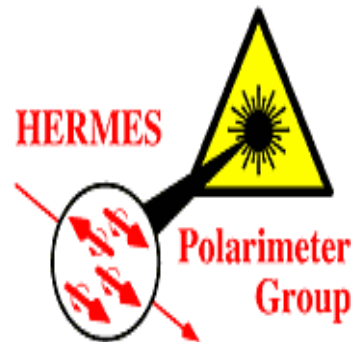


Polarization at DESY on 2006-07

Riccardo Fabbri (DESY-Zeuthen)

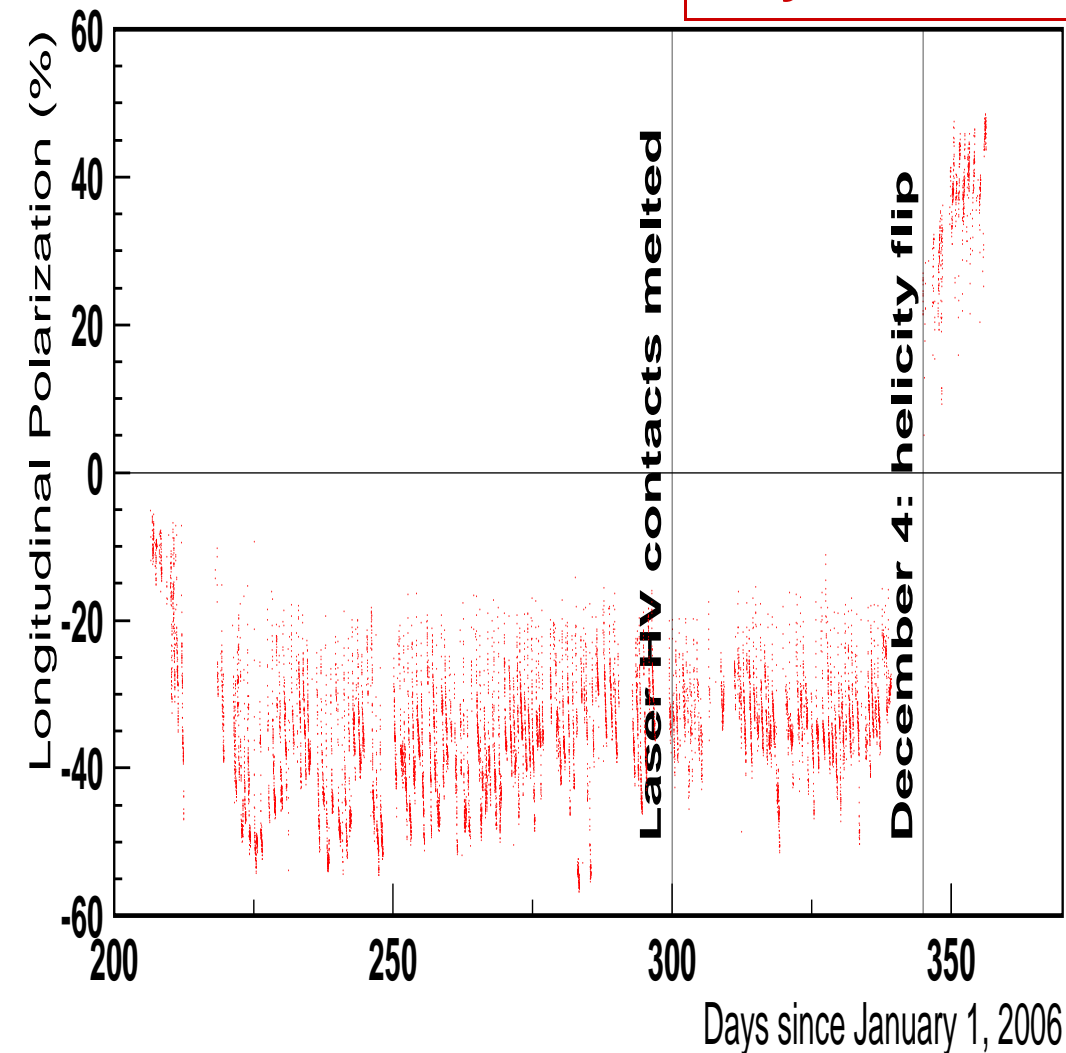


...picking up infos from POL2000 group

-
- Polarization delivered by HERA
 - Agreement between LPOL & TPOL
 - Is everything OK?
 - Contribution from the Cavity
-

Polarization delivered by HERA

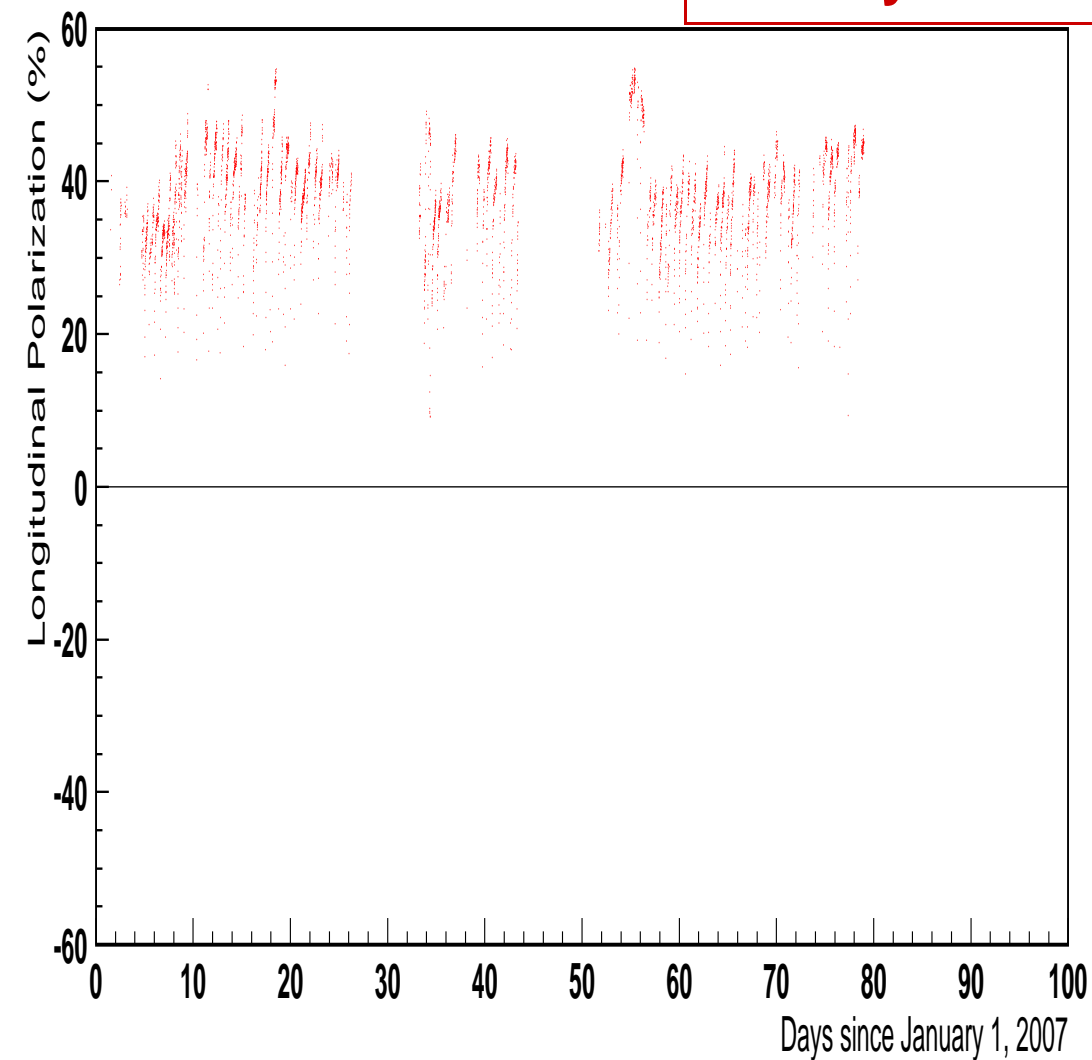
July-December 2006



- ✗ Polarization not always satisfactory provided sofar:
- Summer: $P_{e+} \approx 40 - 50\%$:-)
 - Sep-Dec: $P_{e+} \approx 30 - 40\%$:-(

Polarization delivered by HERA

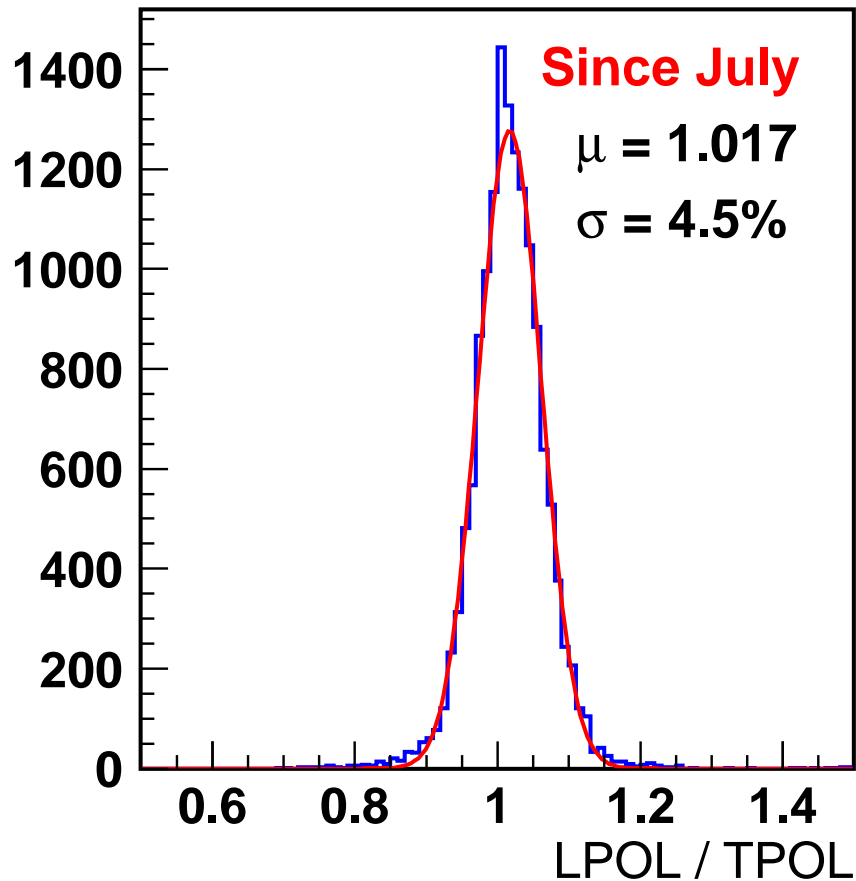
January-March 2006



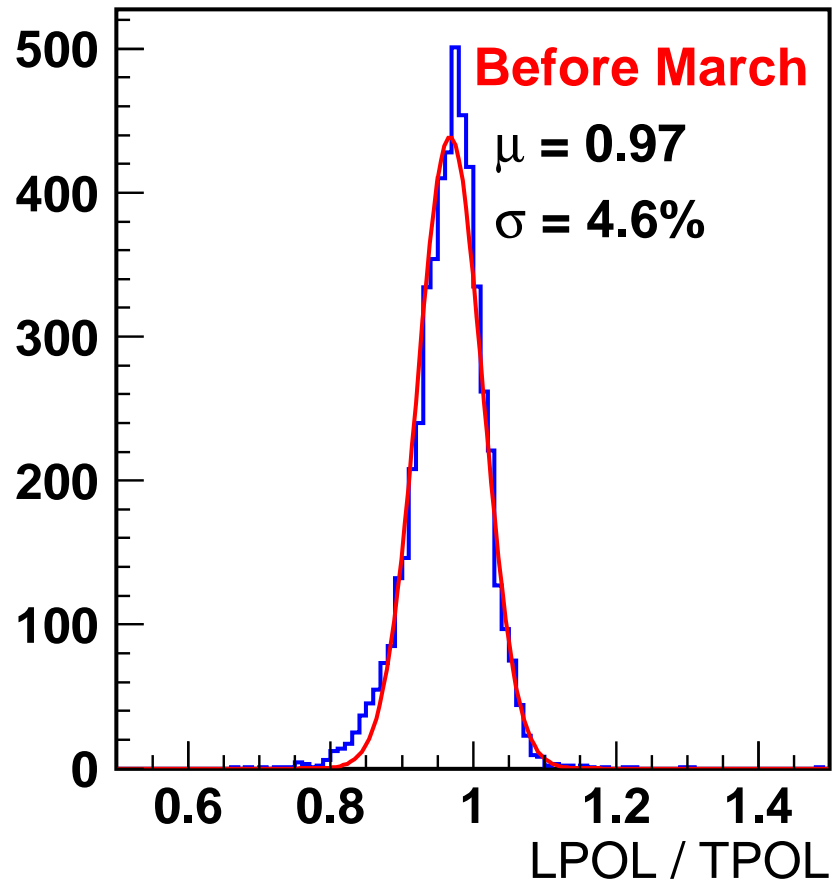
$$-P_{e+} \approx 35 - 45\%$$

Agreement between LPOL & TPOL

Jul-Dec 2006



Jan-Mar 2007



Is everything OK?

❖ Statistical uncertainty:

$$\delta P_{LPOL} \sim 0.8 - 2\%$$

$$\delta P_{TPOL} \sim 1.5 - 2\%$$

❖ Width of L/T distributions suggests systematics involved!

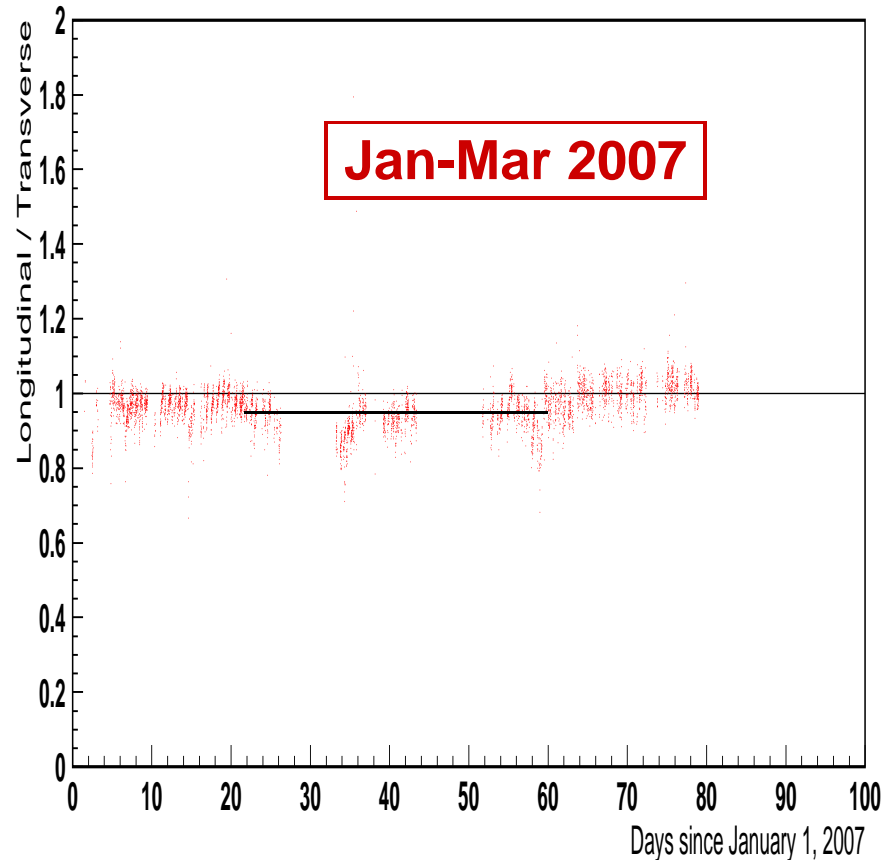
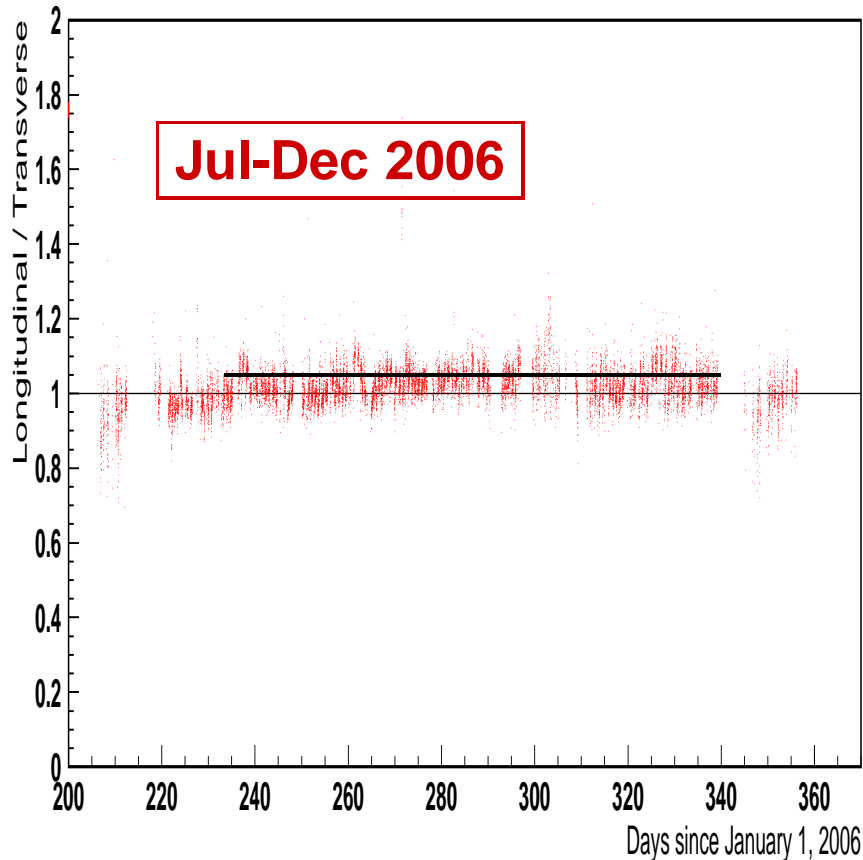
❖ Systematical uncertainty:

$$\delta P_{LPOL}/P_{LPOL} = 1.6\%$$

$$\delta P_{TPOL}/P_{TPOL} = 3.5\%$$

❖ Can cited uncertainties account for the L/T width?

Is everything OK?



☞ **Observed excursion of L/T above 1.05 & below 0.95! (10% of data in 06)**

⇒ **also within a fill**

☞ **Combined cited LPOL & TPOL syst. not accountable for them**

Contribution from the Cavity

☞ **Since Autumn 06 Cavity polarimeter is taking data!**

⇒ **intensive studies on going to find
correct measurement scale**

What can we get from Cavity on L/T excursion?

❖ **Once scale is known within % level, then:**

- **Re-analyze old data when 10% L/T mismatch observed**
- **Pointing at which polarimeter to look at for that period**

☞ **Combined efforts from:**

- **LPOL & TPOL Offline analyses**
- **Cavity data**

⇒ **improved understanding of POL data :-)**