TPOL Offline update

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Outline

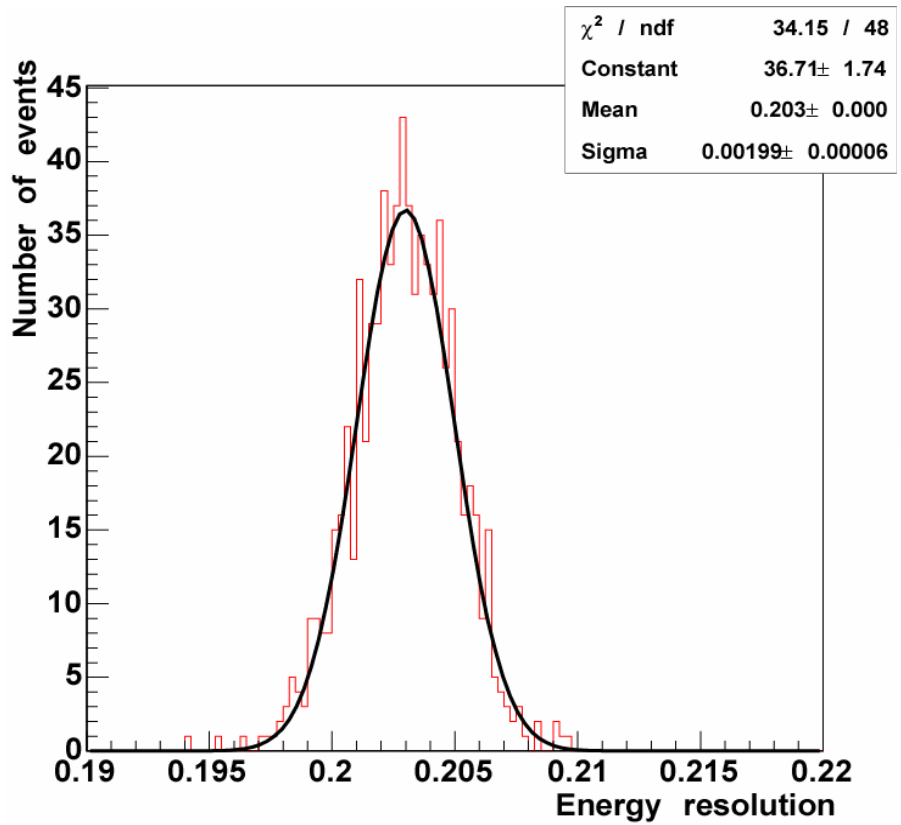
- Final parameter set
  - Which should be free, which should be fixed.
- Resolution of the calorimeter
  - Direct fitting to the Compton edge.
- Results with all data(Oct.03~Aug.04)
  - LPOL/TPOL ratio 10min.avg, 100min.avg
  - Focus/beam size dependence
  - Focus correction
- Summary & Future

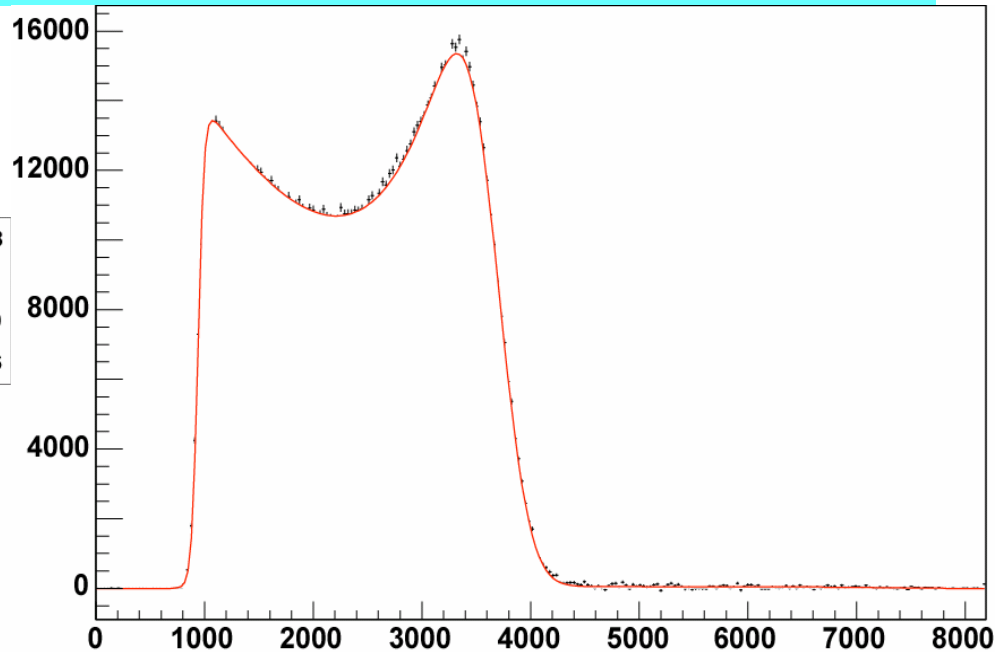
Final parameters Set

η -y 4 parameters	Table scan
η range	+/- 0.5
beam offset	free
distance	65m
beam size	free
CAL miscalibration	free
skew (η resolution)	0.0
CAL energy resolution	20.3%

Next slide

Resolution of the Calorimeter



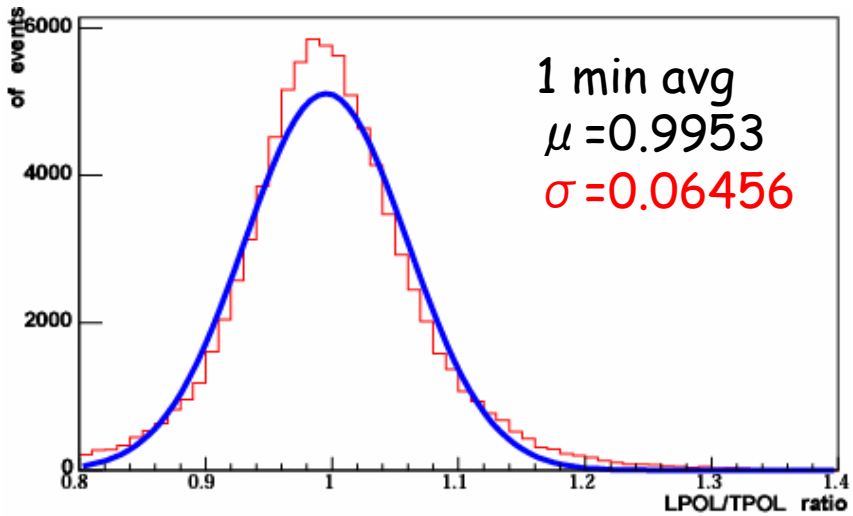


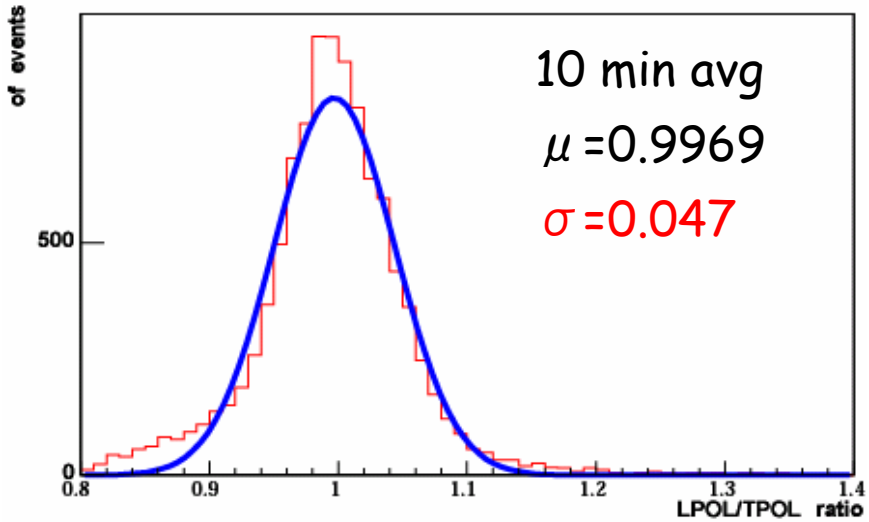
- Estimated energy resolution with around 20 hours data.

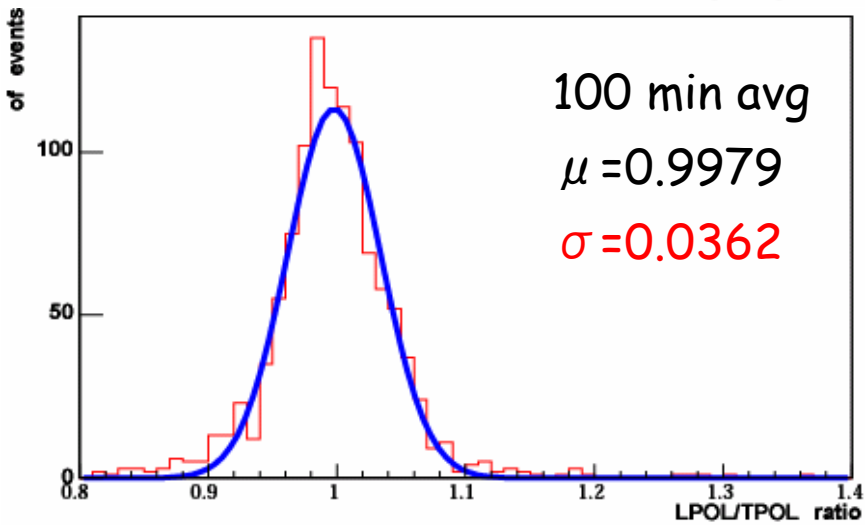
Some results with all data(Oct.03~Aug.04)

- All polarisation data has been analyzed using ZEUS batch machine.
- It takes around 1 week to reprocess them.
- Results
  - LPOL/TPOL ratio
  - Focus/ beam size dependence
  - Focus correction

LPOL/TPOL ratio with all data





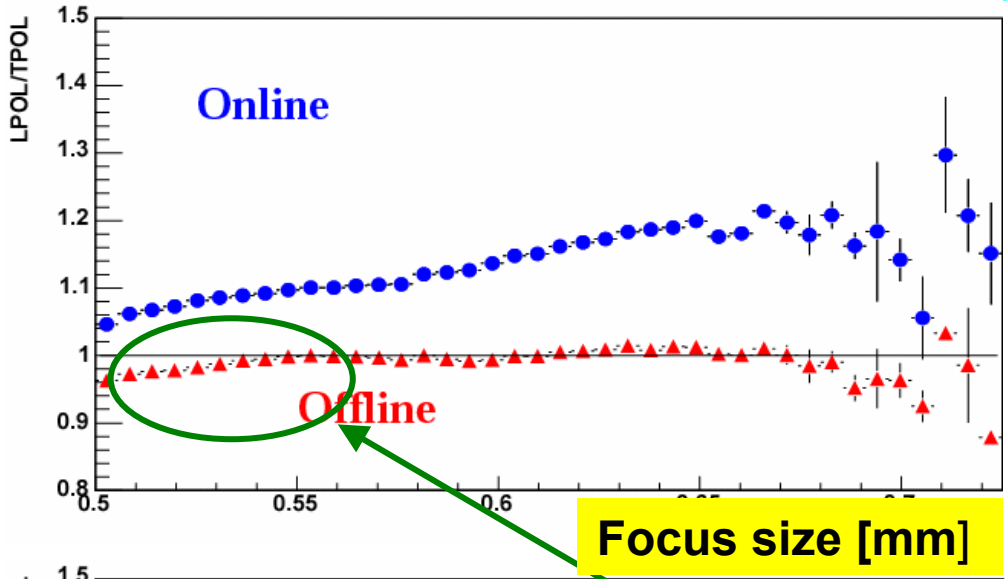


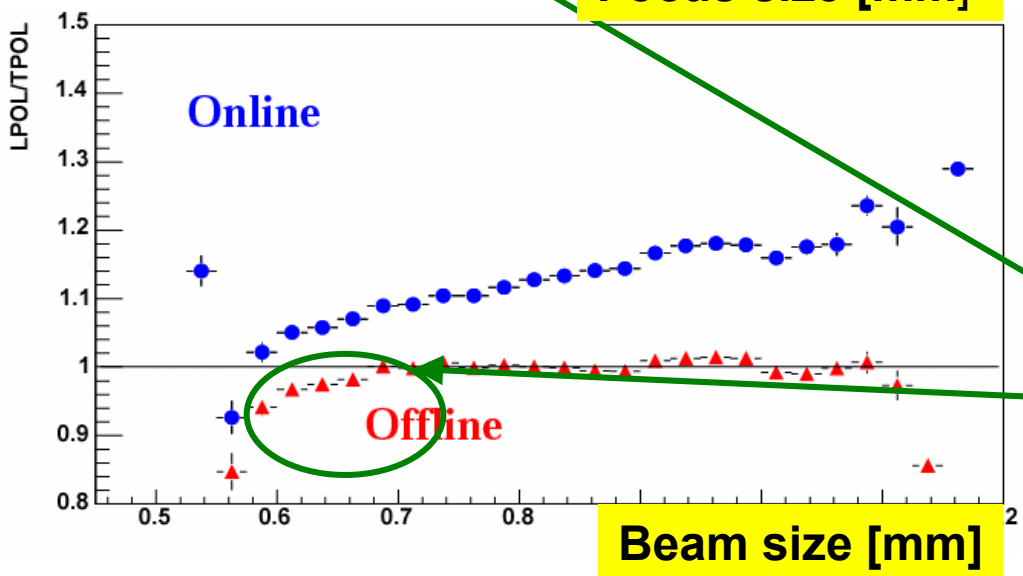
With more averaging time.

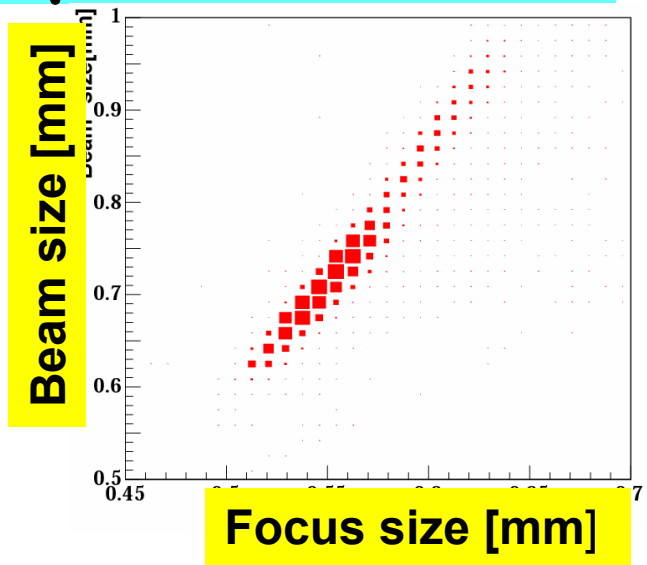
→ σ is getting smaller,

this method work fine.

Focus / beam size dependence

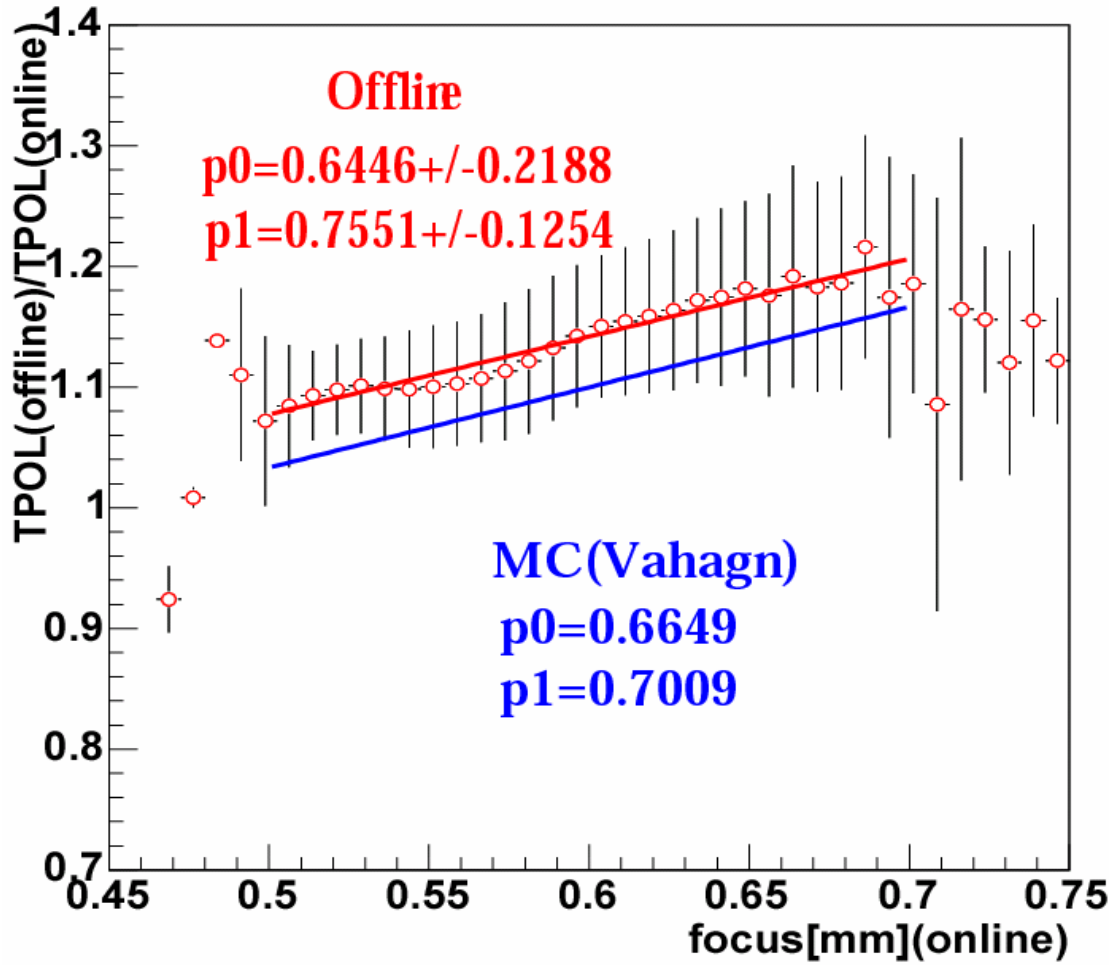






The fitting method can almost absorb a focus/beam size dependence.
But, very weak dependence are remained.

Focus correction with all data



The slope from the fitting method agree with Vahagn's results, but the offset does not.

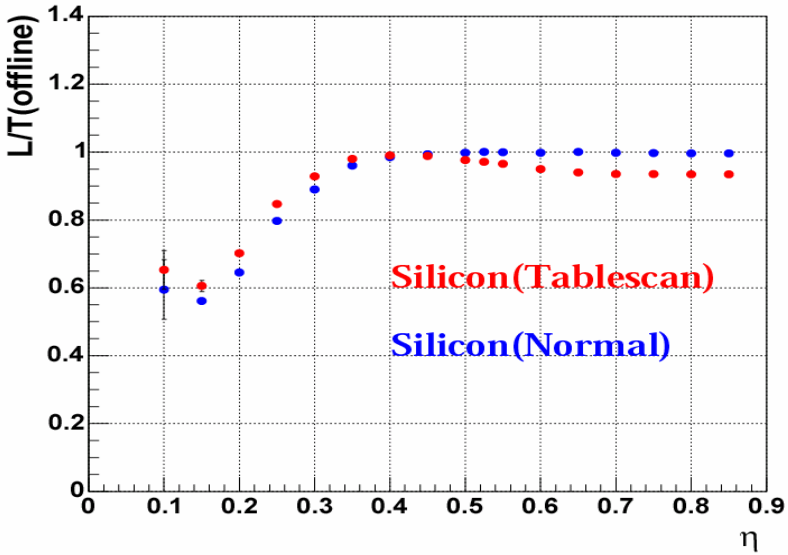
From these results, this method has completed.

Summary & future

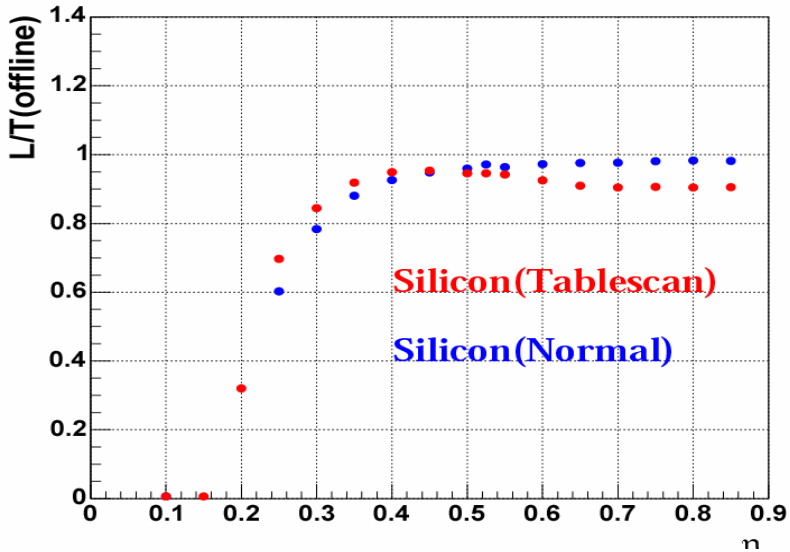
- The offline multi-parameter fitting method has completed.
- The LPOL/TPOL ratio with more averaging time seems to be good.
- The fitting method can almost absorb the focus dependence.
- Systematic errors are under estimating with large statistics.
- Summarize all of those results and write master thesis.
- Talk about all review of the analysis on next TPOL analysis meeting.

Extra slides

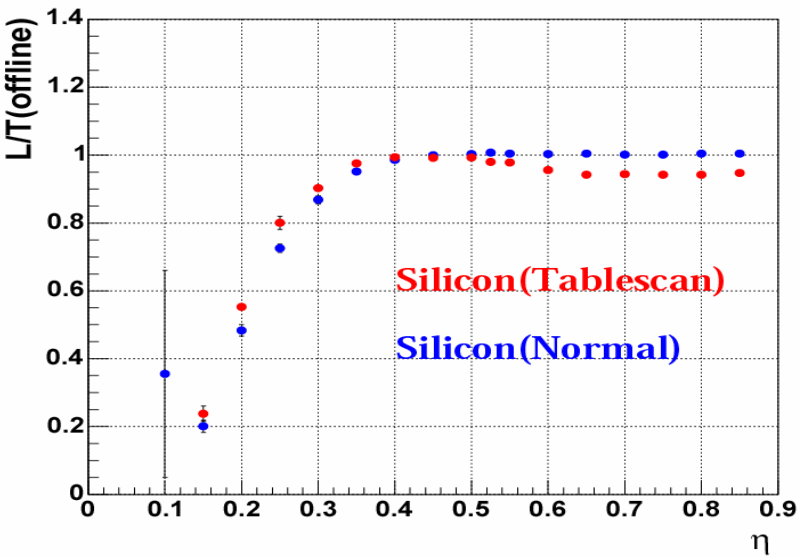
26th.Apr.2004



1st.Mar.2004



28th.May.2004



25th.Jul.2004