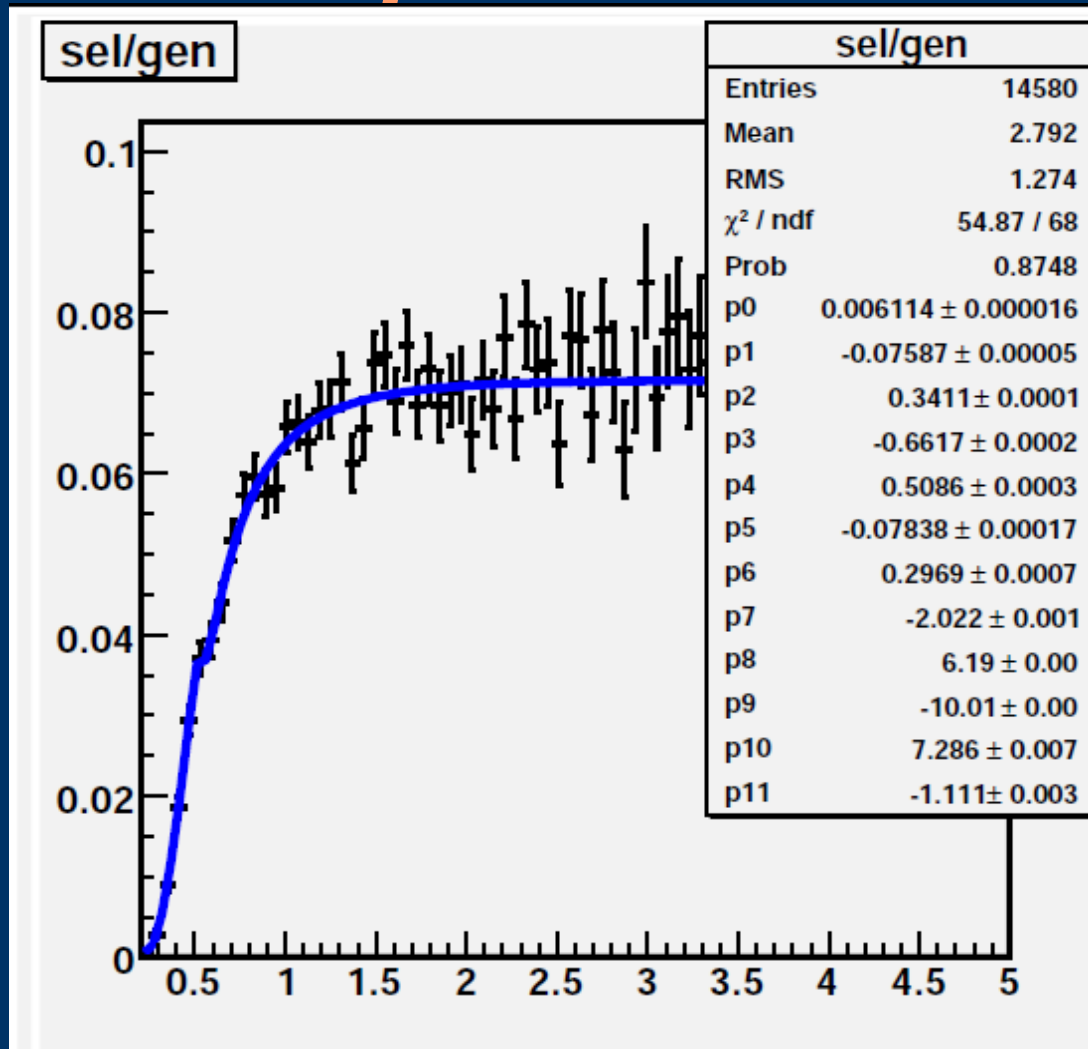


# More Acceptance Plots(III)

## Celestino Rodríguez Cobo

# Time acceptance



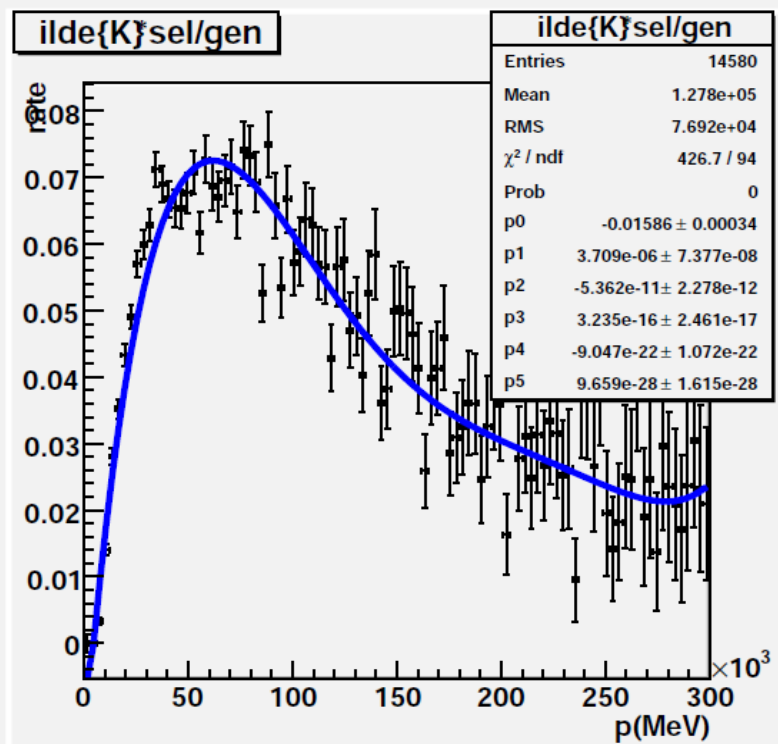
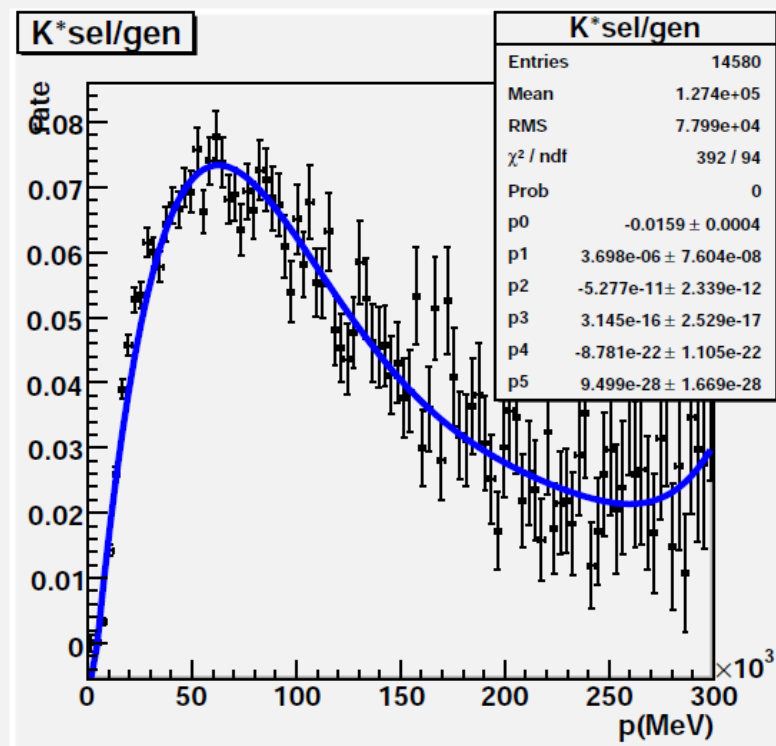
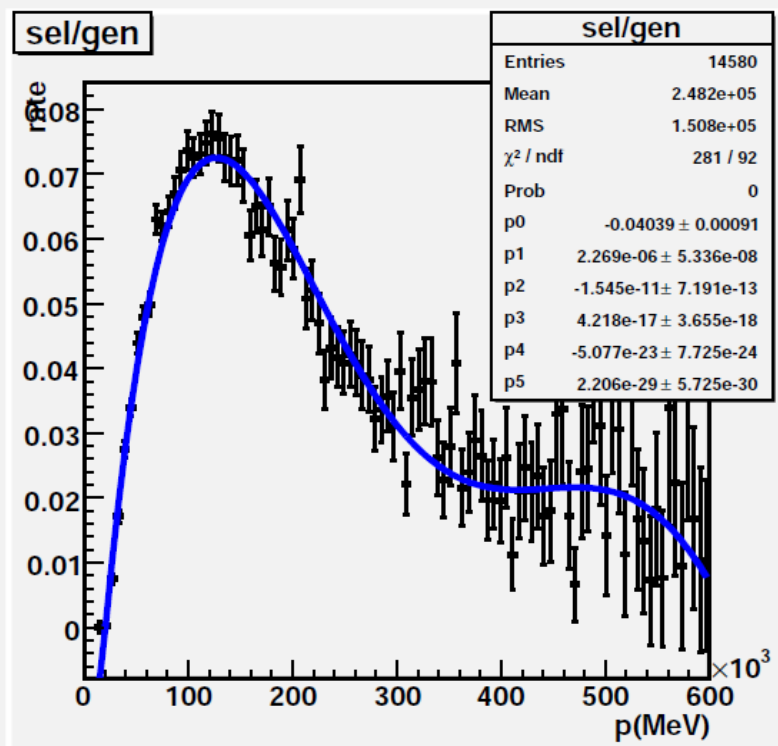
- Rate vs proper time (ps)

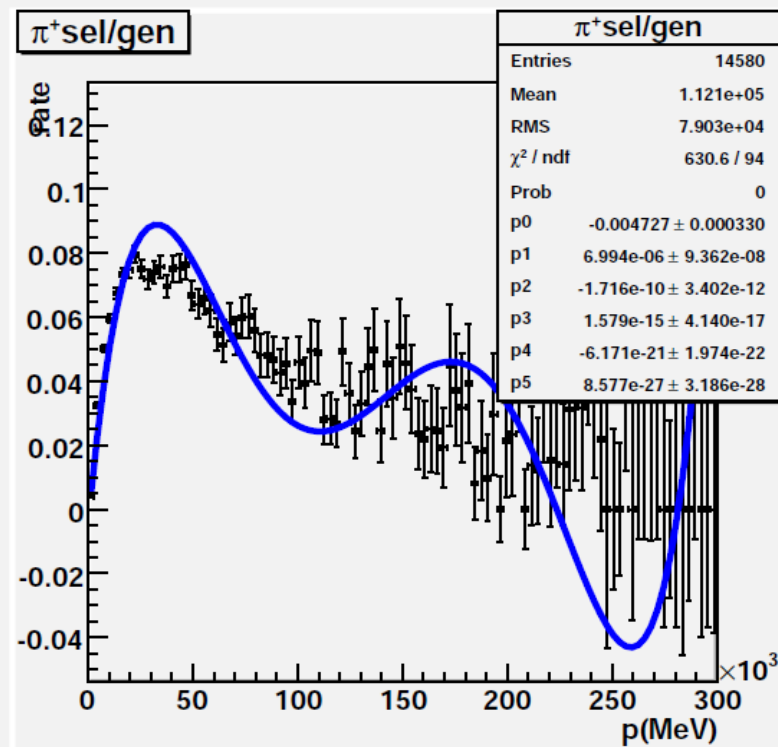
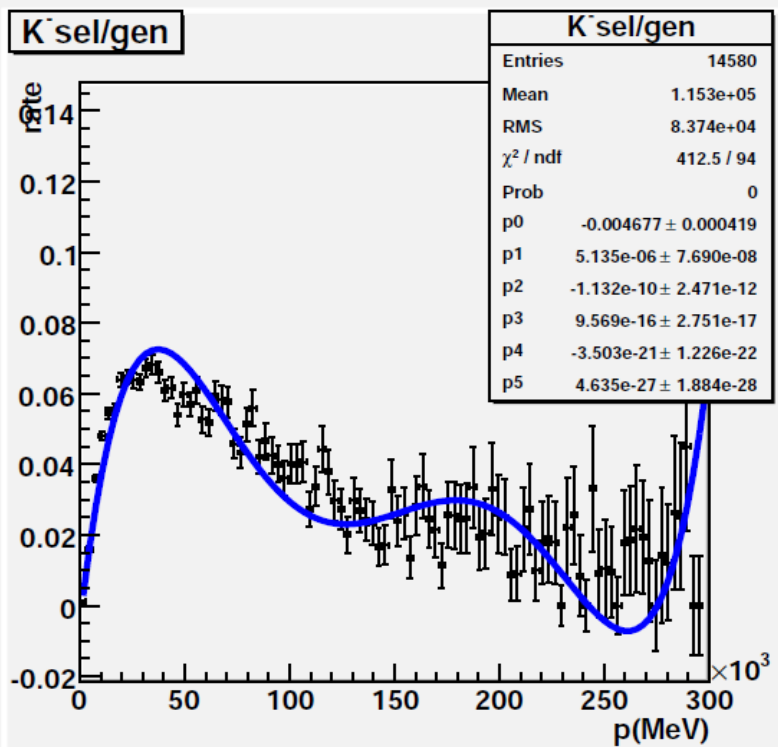
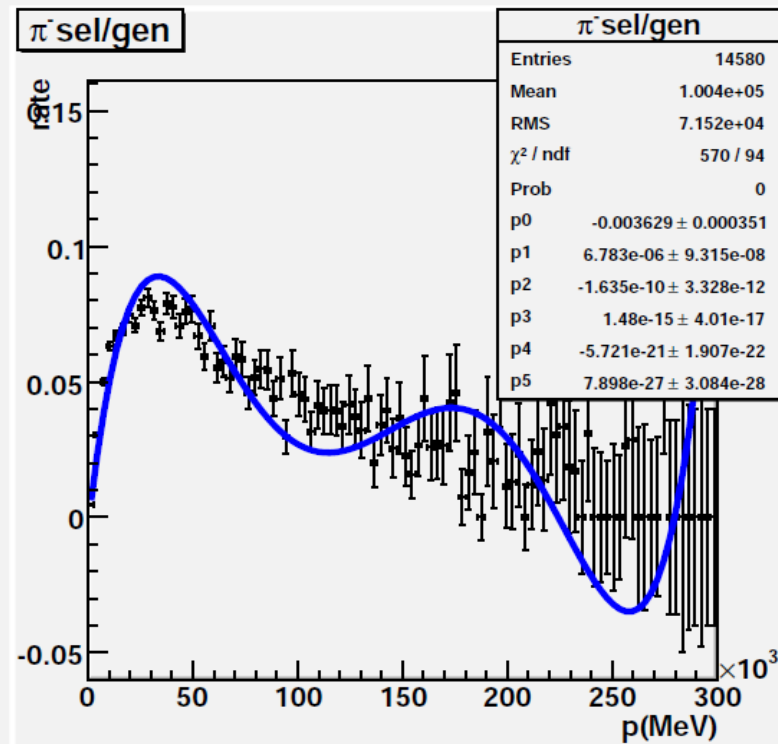
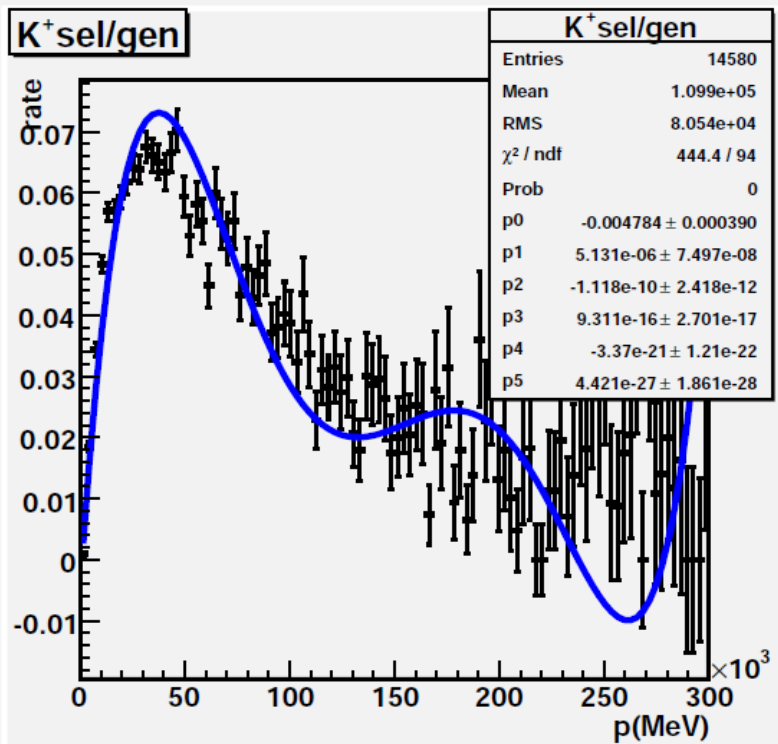
# *Time acceptance and resolution*

- Bulky model used  $\text{pol5}(t)/\text{pol5}(t)$
- Improvement! (Can it be refined?)
- Resolution = work in progress.
- RooFit handles  $\chi^2$  poorly.
- Paula's fits were made on reconstructed signal, not in Mctruth/reconstructed signal rates
- Maximum Likelihood fits. No  $\chi^2$  calculation whatsoever.

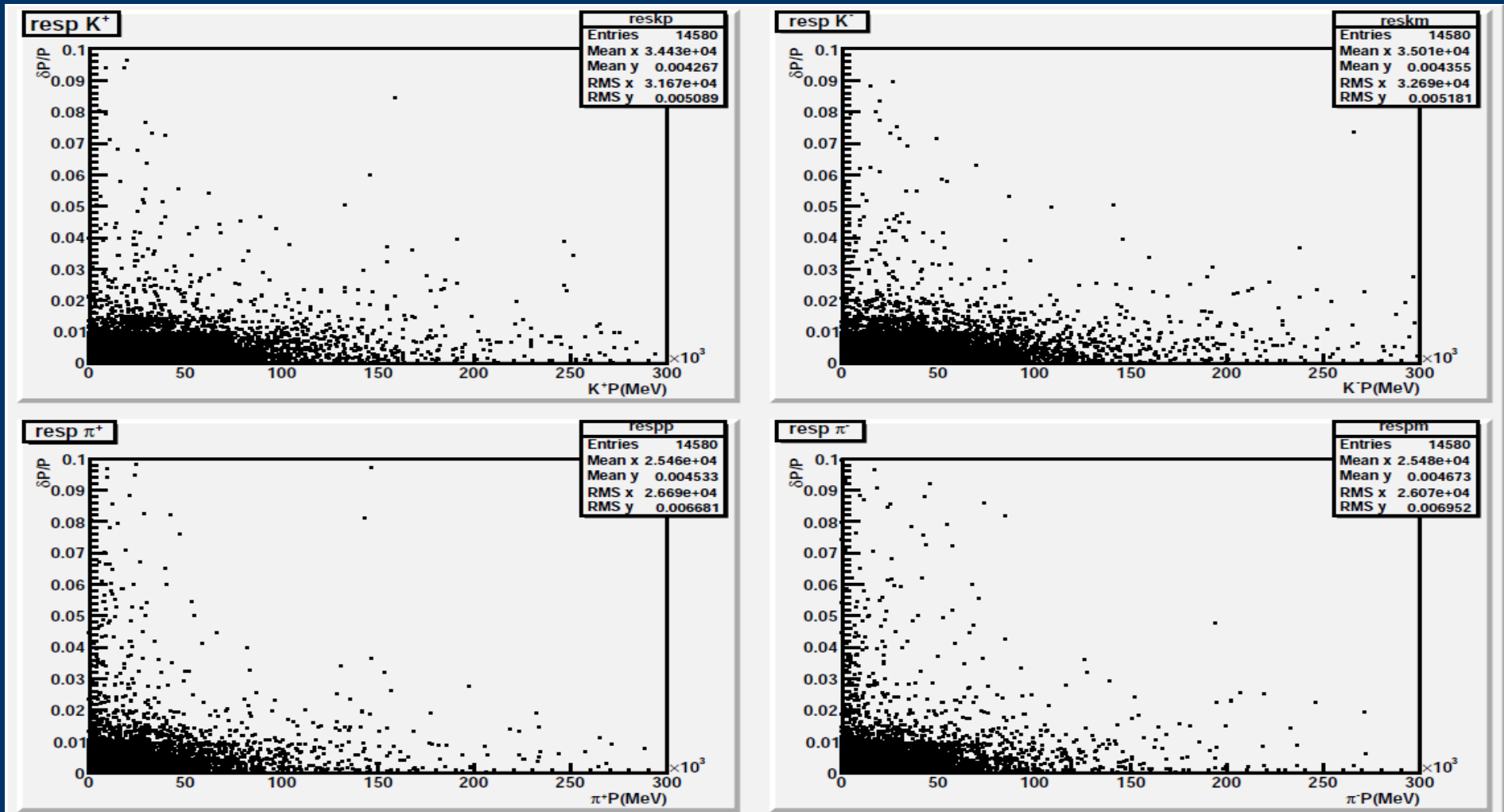
# *Particle momentum acceptance*

- Lab frame plots.
- Simple Pol5(p) lineshape.
- Good start, but needs a lot of improvement!





# Particle momentum resolution



- $\Delta P/P$  versus  $P$  scatter plot.

# *Angular and mass acceptance reports*

- Pol 3 x pol 3 fits, but not quite well.
- Probabilities are at most 20%
- Attempted to perform fits on angle rather than cos.
- Attempts were unsuccessful.
- Mass acceptance and resolution has slight issues
- Obtained Mctruth mass and Reconstructed Mctruth mass DIFFER. (with photons, even)