

## Snake Calibration Resolution

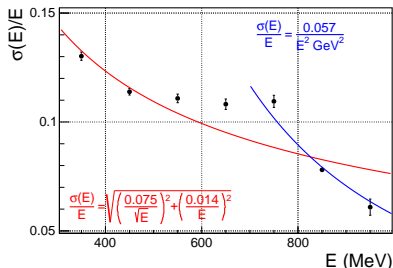
Maxime Levillain

November 10, 2016

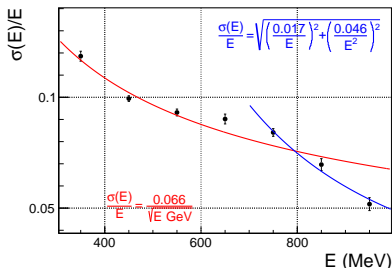


- ▶ To remove accidentals:
  - ▶  $|t_{\text{tagger}} - t_{\text{hycal}}| < 40\text{ns}$
  - ▶  $|x_{\text{cluster}} - x_{\text{transporter}}| < 2\text{cm}$  and  $|y_{\text{cluster}} - y_{\text{transporter}}| < 2\text{cm}$
  
- ▶ To fit gaussian distributions:
  - ▶  $2\sigma$  from the peak

cpp

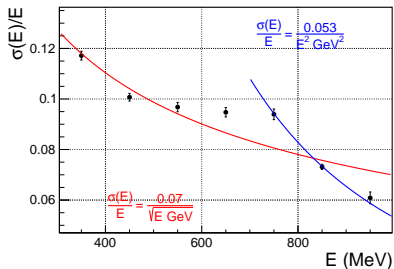


primex

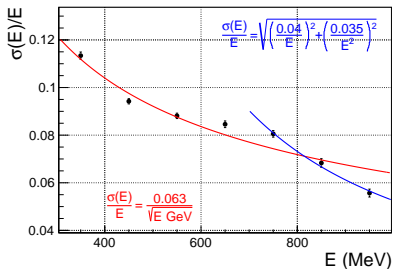


- ▶ Drop at 700-800 MeV
- Possibly from leaks at the edge
- ▶ Better correction for the primex clustering algorithm

cpp

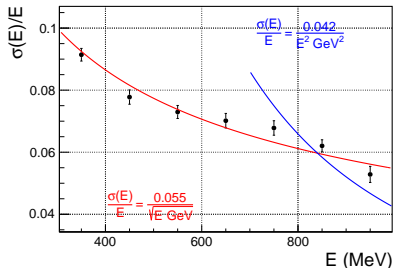


primex

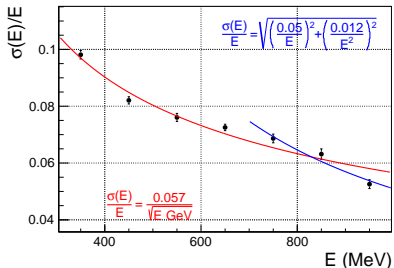


# Center of Lead Glass (3 layers)

cpp

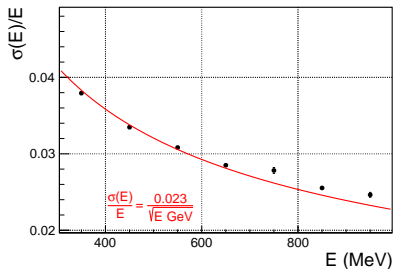


primex

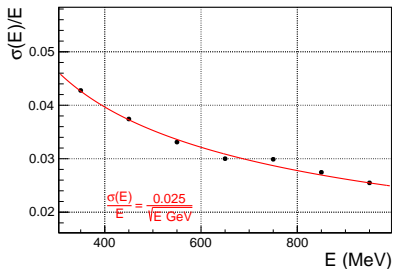


- ▶ Still some inflexion around 700 MeV

cpp

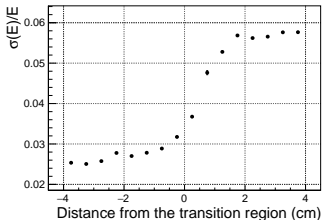


primex

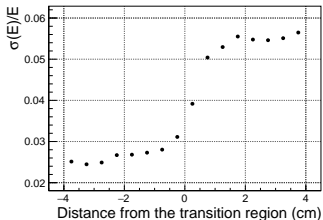


# Transition Region (primex)

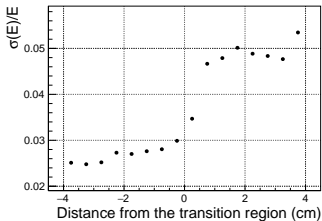
top



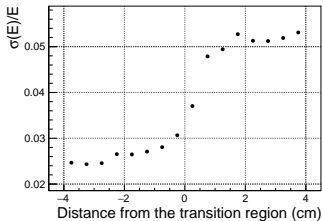
left



bottom

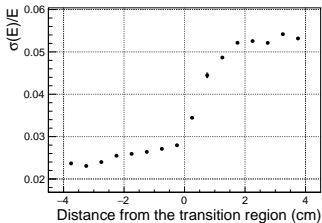


right

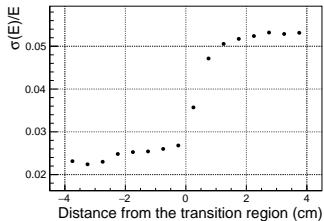


# Transition Region (cpp)

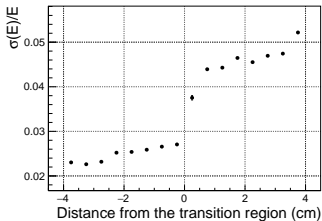
top



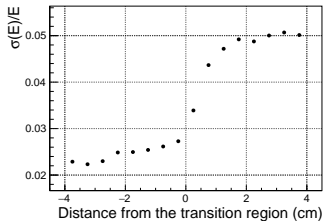
left



bottom



right





- ▶ Continuous curve between PbWO and Pb Glass
- ▶ Presence of a peak at some places of the module (more in primex code)
- Need to look at resolution as a function of distance from module center (not done yet)