

Snake Calibration Resolution

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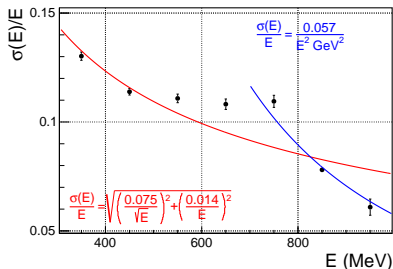
November 10, 2016



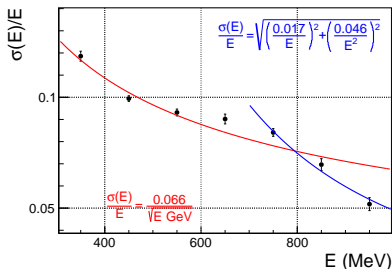
- ▶ To remove accidentals:
 - ▶ $|t_{\text{tagger}} - t_{\text{hycal}}| < 40\text{ns}$
 - ▶ $|x_{\text{cluster}} - x_{\text{transporter}}| < 2\text{cm}$ and $|y_{\text{cluster}} - y_{\text{transporter}}| < 2\text{cm}$

- ▶ To fit gaussian distributions:
 - ▶ 2σ from the peak

cpp

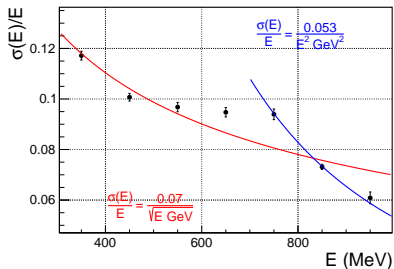


primex

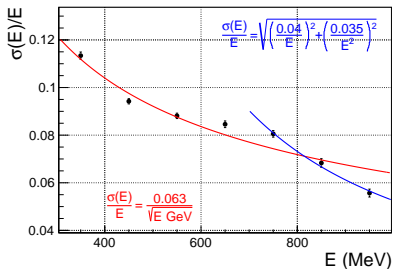


- ▶ Drop at 700-800 MeV
- Possibly from leaks at the edge
- ▶ Better correction for the primex clustering algorithm

cpp

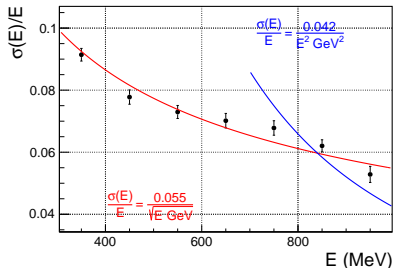


primex

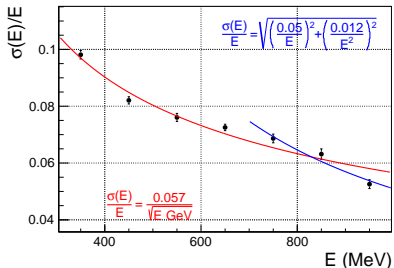


Center of Lead Glass (3 layers)

cpp

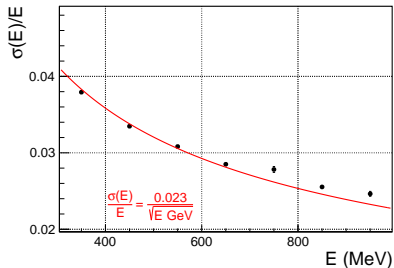


primex

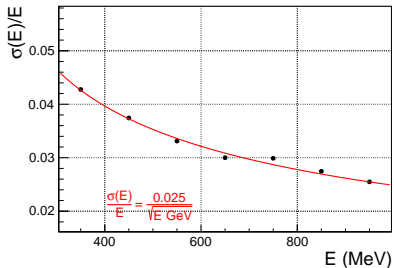


- ▶ Still some inflexion around 700 MeV

cpp

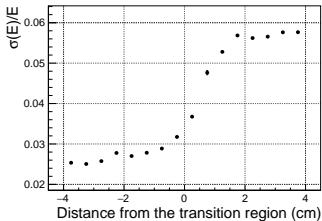


primex

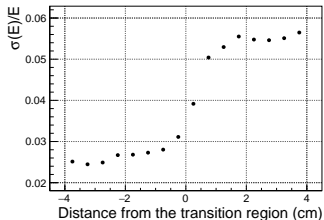


Transition Region (primex)

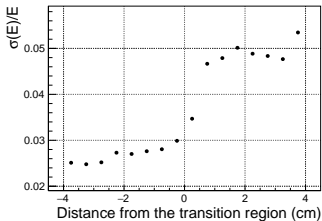
top



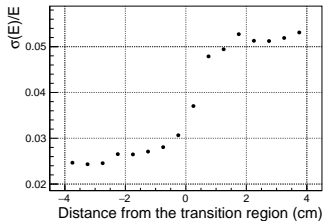
left



bottom

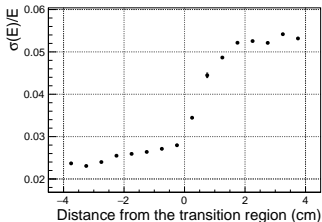


right

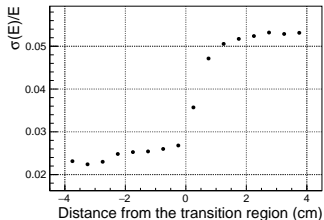


Transition Region (cpp)

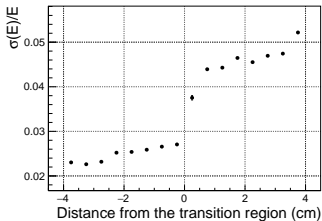
top



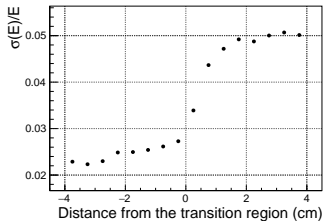
left



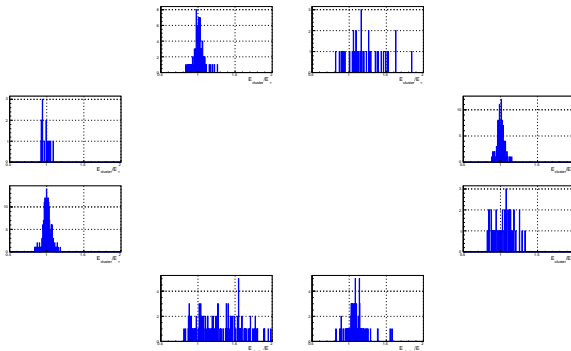
bottom



right

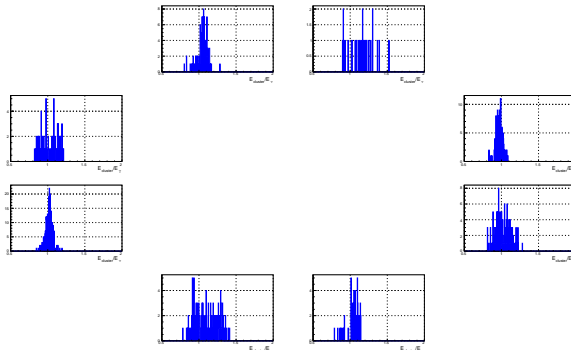


- ▶ Continuous curve between PbWO and Pb Glass
- ▶ Presence of a peak at some places of the module (more in primex code)
- Need to look at resolution as a function of distance from module center (not done yet)



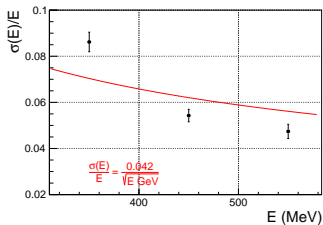
- ▶ Modules with direct calibration possible: W527, W563, W594
- ▶ Modules needing tail calibration: W528, W560, W597, W629, W630

Inner Modules Distributions (primex)

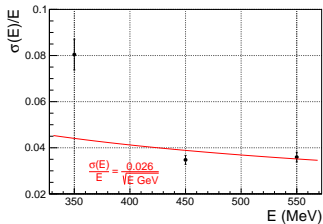


Resolution for possible modules (cpp)

W527



W563



W594

