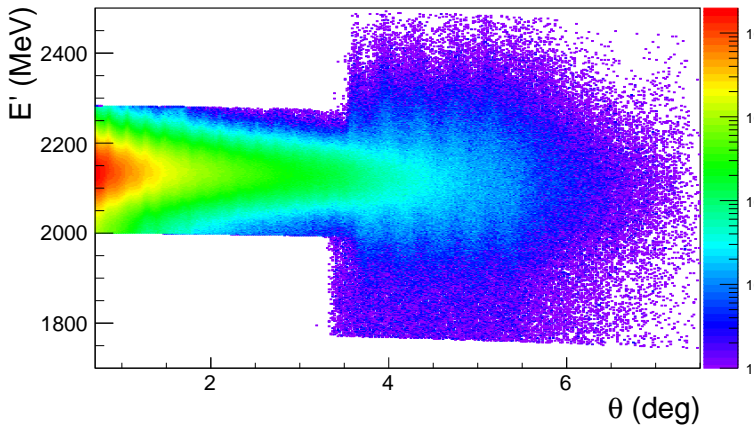


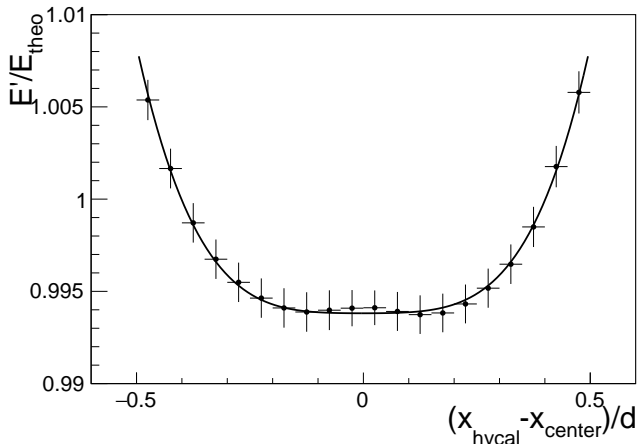
Energy Correction

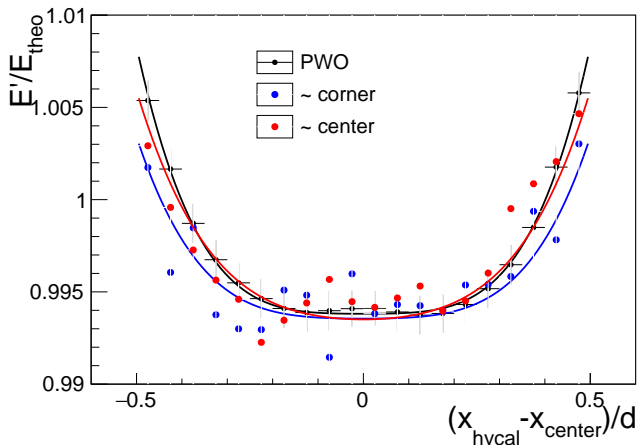
Maxime Levillain

February 8, 2018

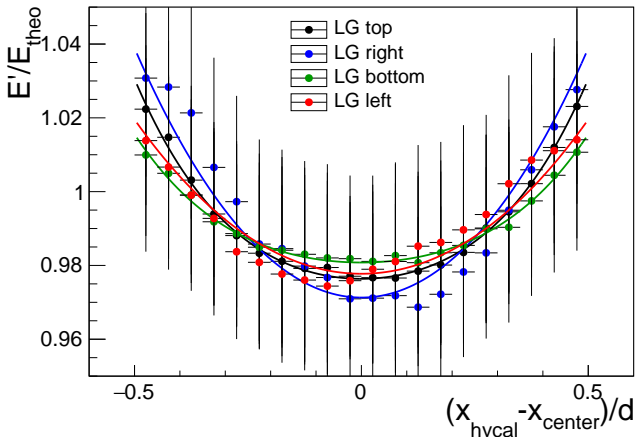




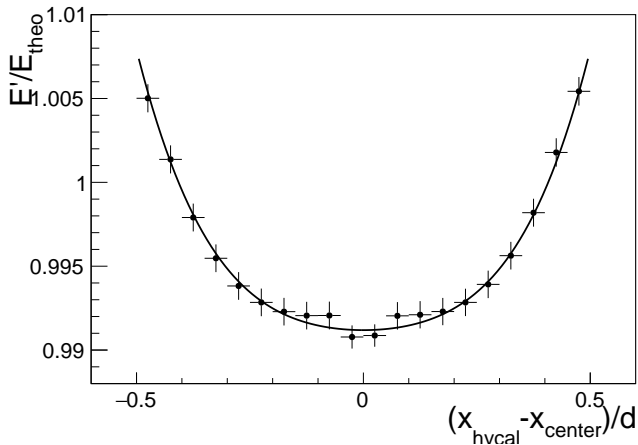




► Some small position dependency



► Disparate amplitudes → needs different corrections

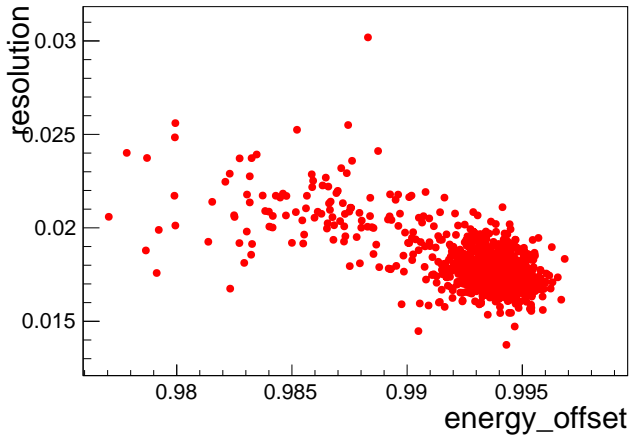


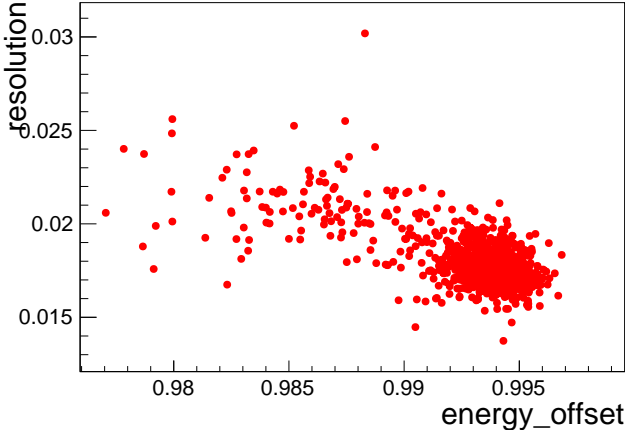
$$t_x = (x_{rec} - x_{center}) / (cellsize)$$

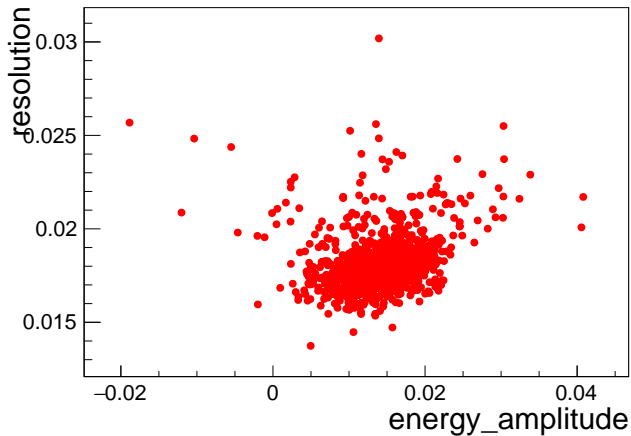
$$t_y = (y_{rec} - y_{center}) / (cellsize)$$

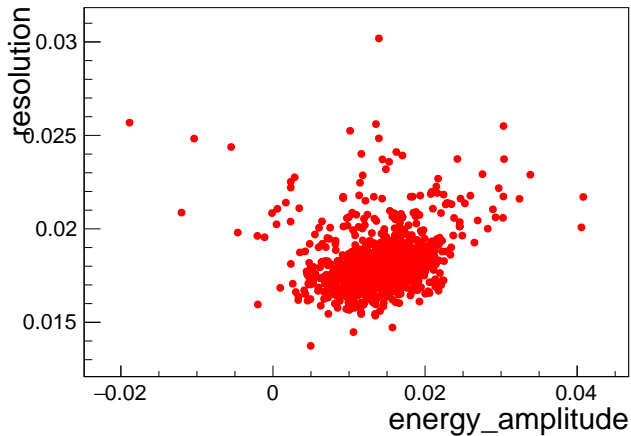
$$E_{corr} = \frac{E_0}{p_0 \cdot (1 + p_{1x} \cdot t_x^2 + p_{2x} \cdot t_x^4) \cdot (1 + p_{1y} \cdot t_y^2 + p_{2y} \cdot t_y^4)}$$

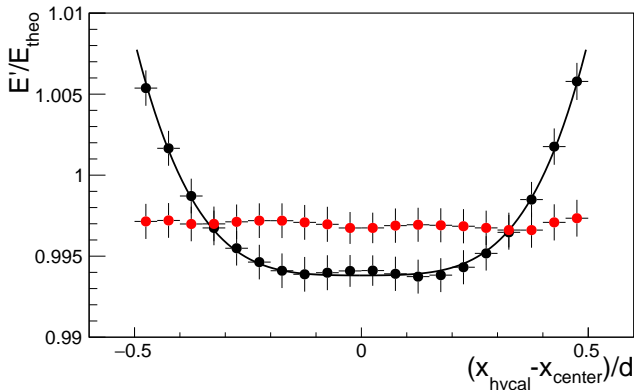
- ▶ Different from Ilya's ($\sim (1 + p_1 \cdot \exp(p_2/x^2))$)
- ▶ Better suited for LG with a parabolic profile



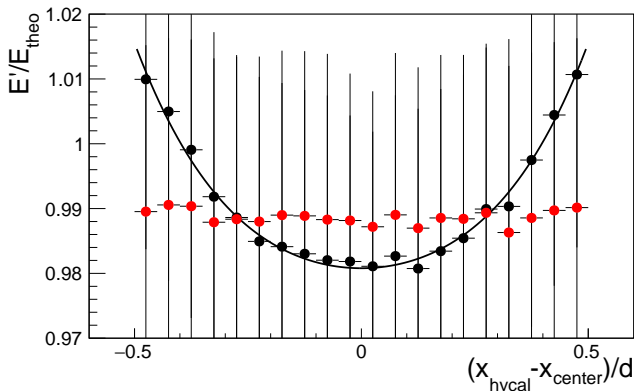




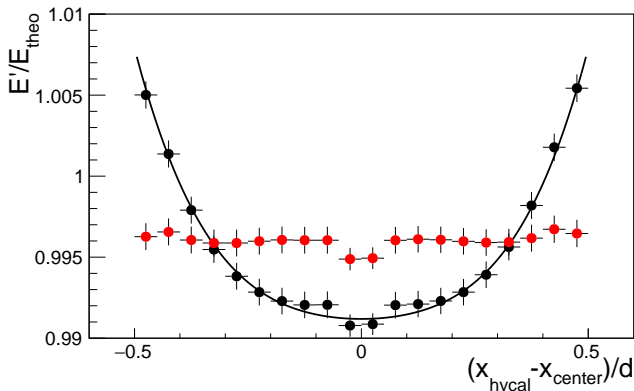




- ▶ 0.3% offset from calibration



- ▶ 1% offset from calibration



- ▶ 0.4% offset from calibration

