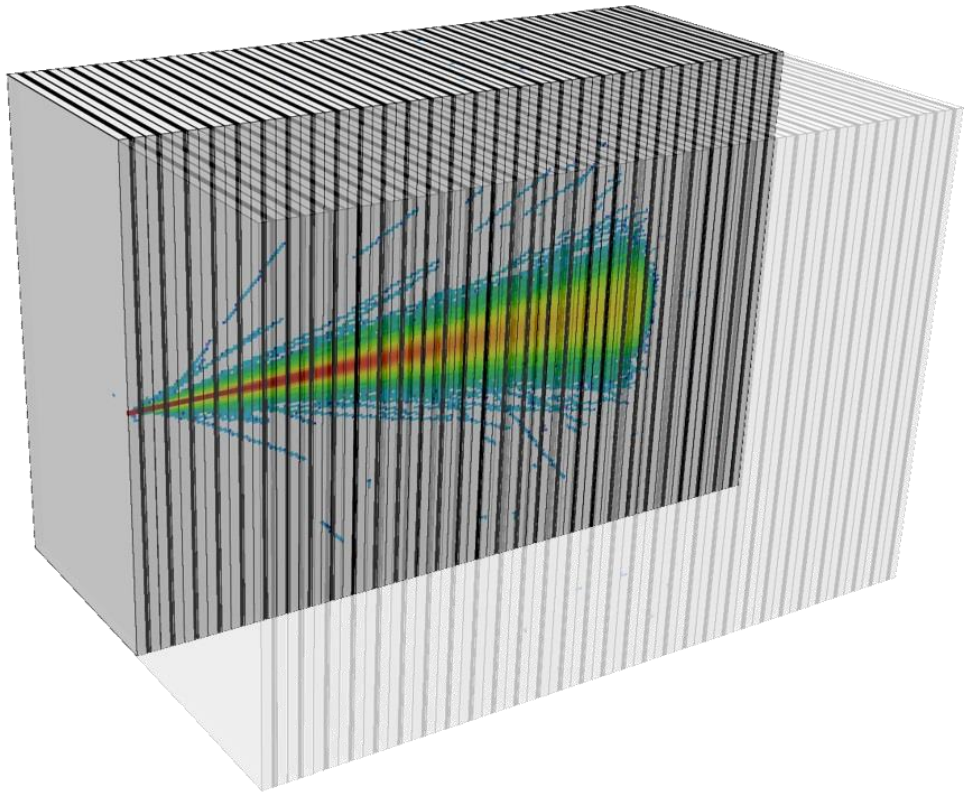
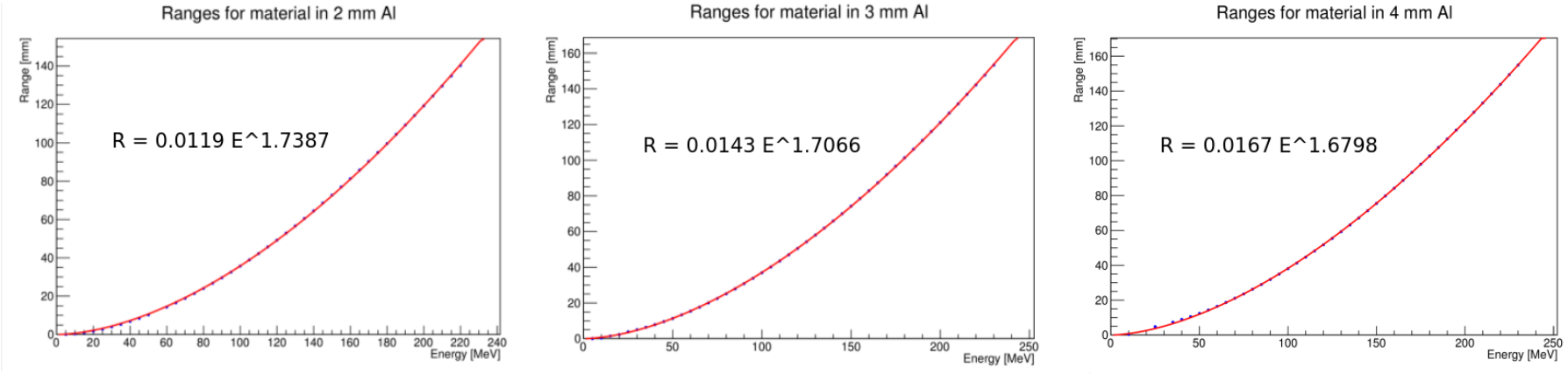
Group Meeting 2017-01-26

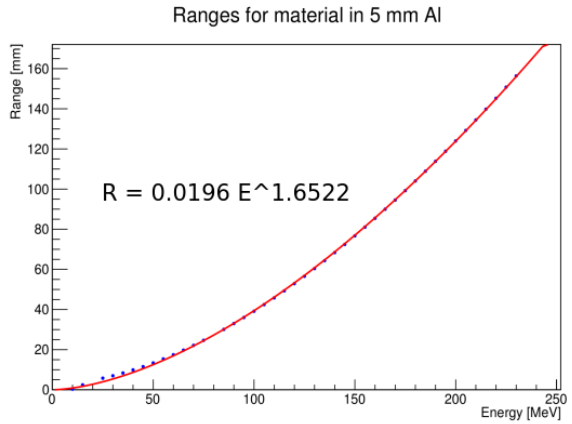
Optimization of the DTC

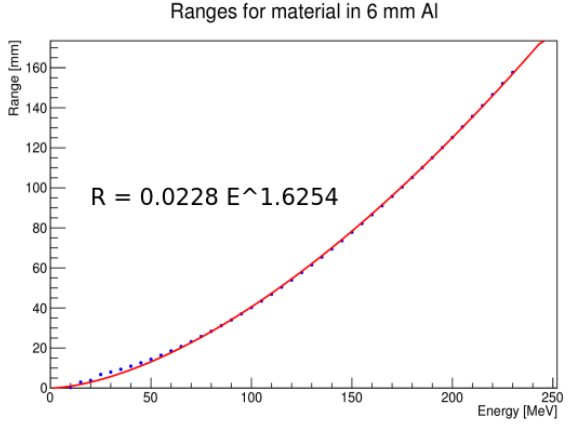


Range in detector

- Range: $R_0 = \alpha E^p$
  - Find α, p by fitting data for R, E.





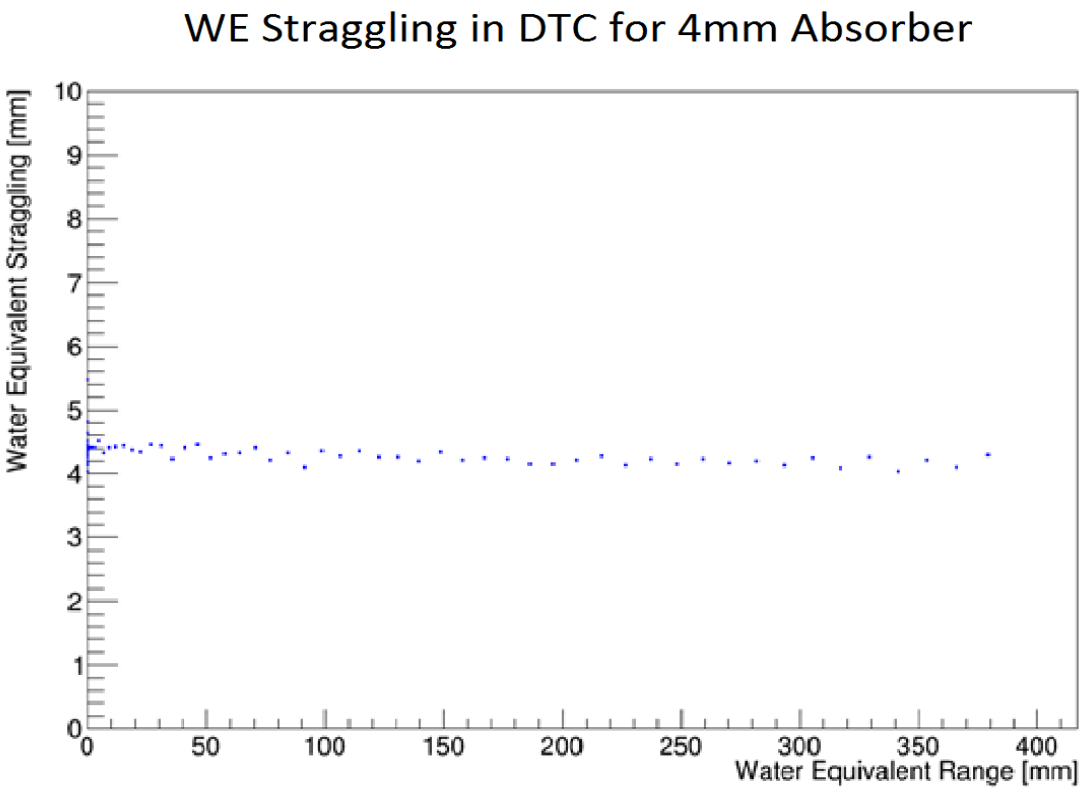


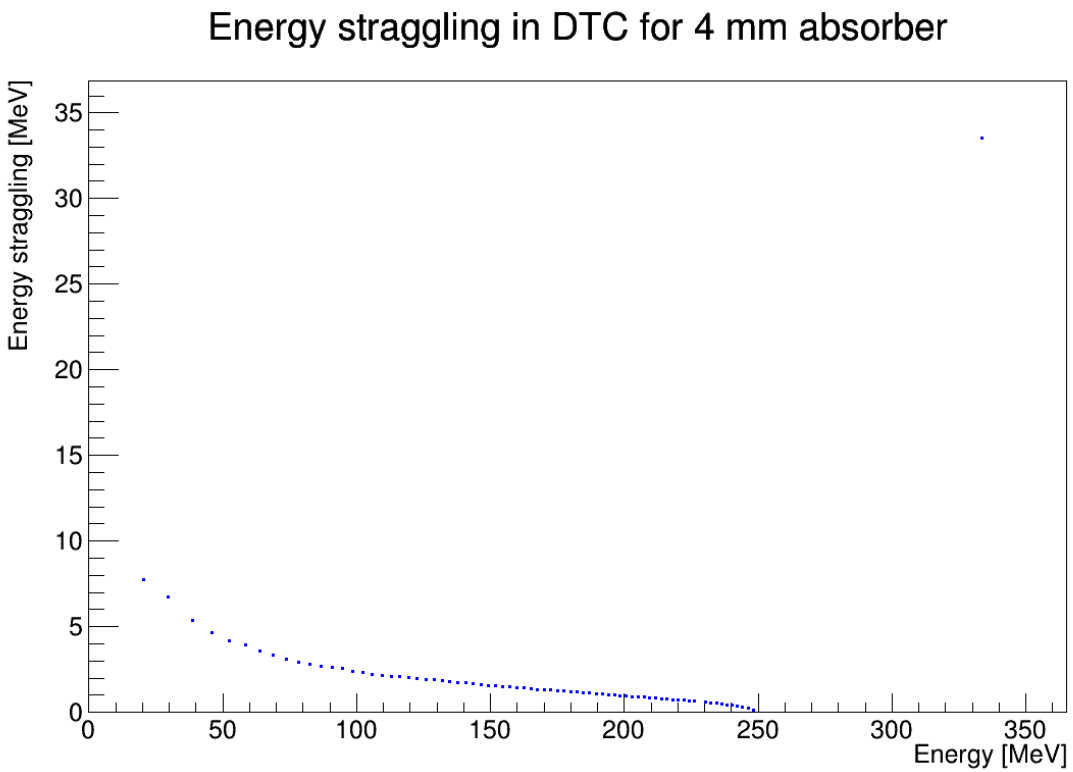
Number of Layers

Estimation of number of layers needed for stopping 230MeV protons:

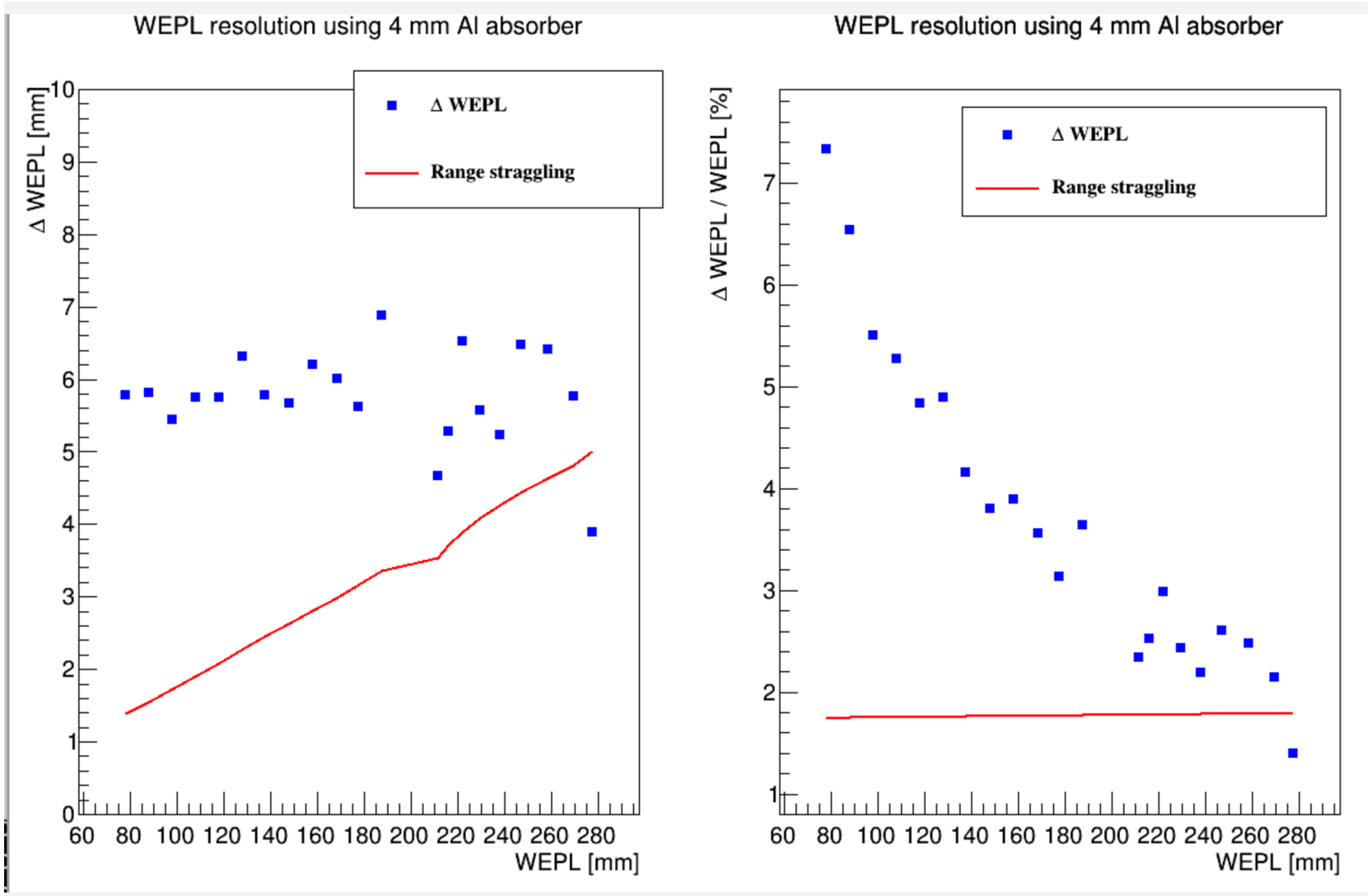
Absorber Thickness	Number of layers
2 mm	~63
3 mm	~45
4 mm	~35
5 mm	~29
6 mm	~25

Straggling in Detector (4 mm Aluminium)

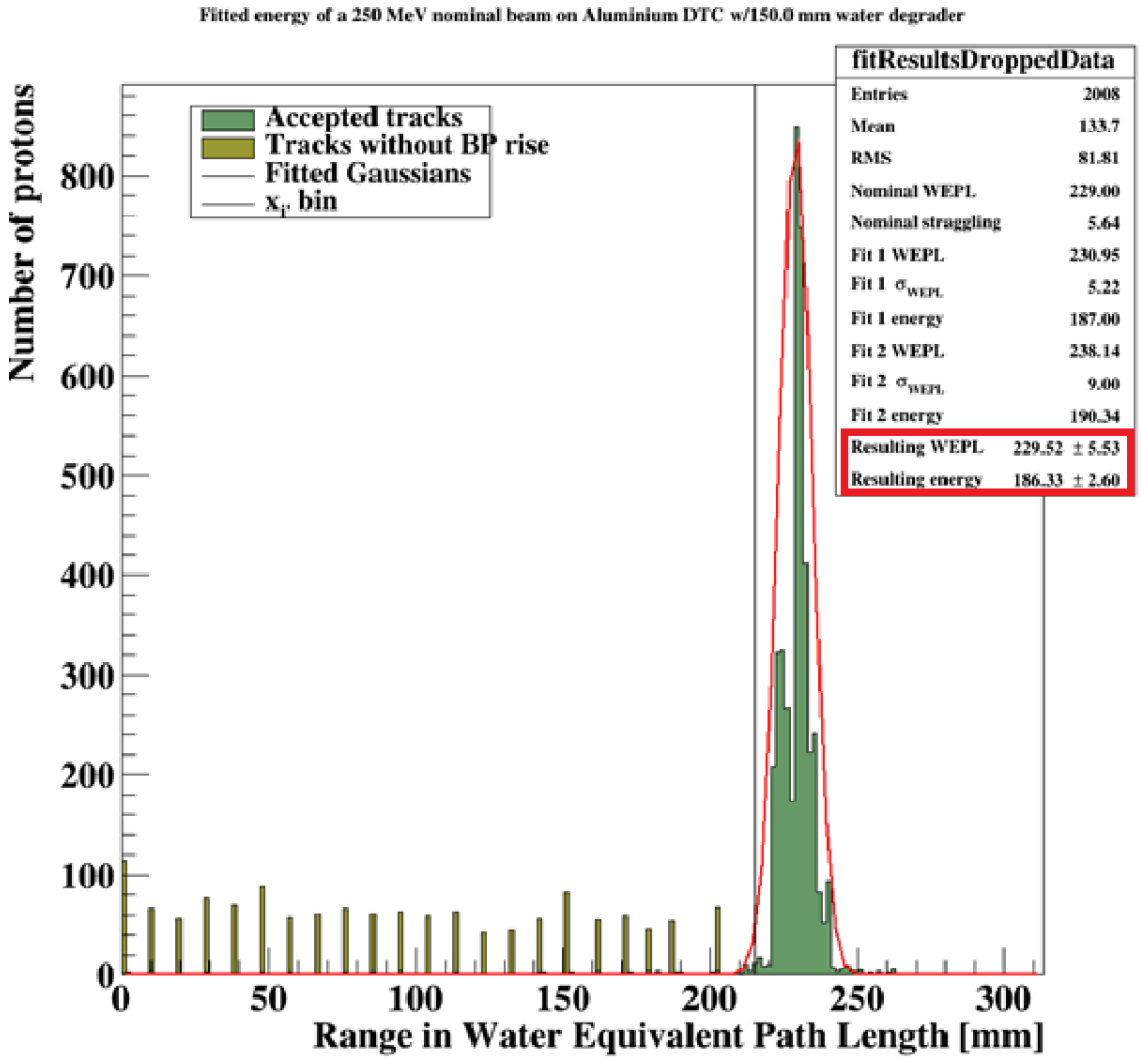




WEPL Resolution (4 mm Aluminium)



250 MeV Proton Beam on 4mm Aluminium DTC with a 150 mm water degrader



Thank you for your attention

Special thanks to Helge E.S. Pettersen and Ilker Meric

WEPL Resolution 2mm-5mm (No Degrader)