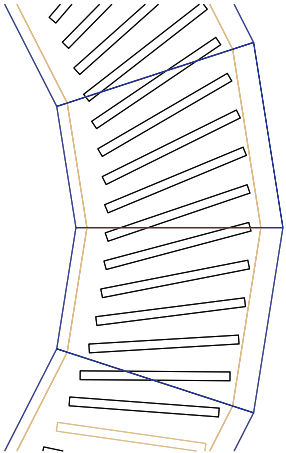
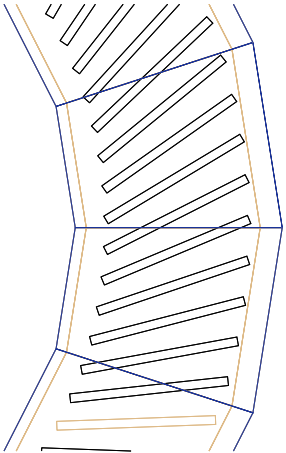
Different inclination angles

work in progress...
results for simulation that finished
(more to come)

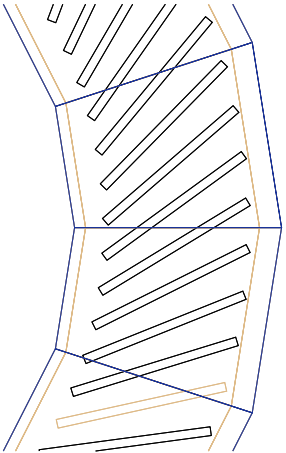
Different inclination angles



20°



30°



40°

pictures: zoom $\times 20$

20°

- 0.424 #X_0/cm
- 2 mm absorber
- 1 mm readout
- **1843 planes, 68 cm long**
- **3.15 – 5.5 mm lAr gap (74% ↑)**

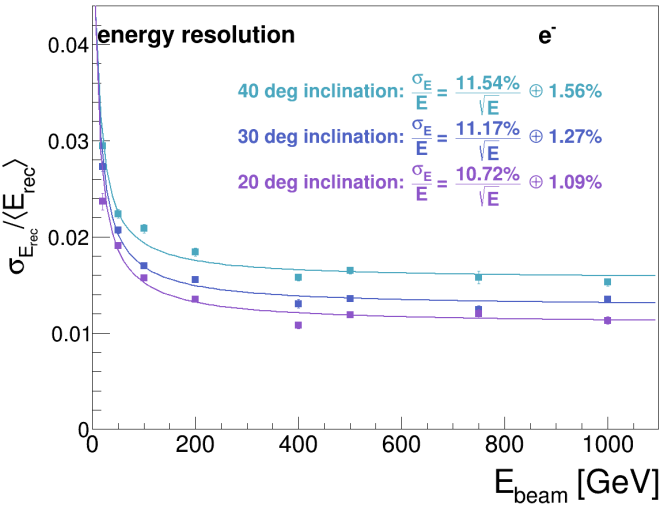
30°
(current baseline)

- 0.422 #X_0/cm
- 2 mm absorber
- 1 mm readout
- **1741 planes, 72 cm long**
- **3 – 5.6 mm lAr gap (86% ↑)**

40°

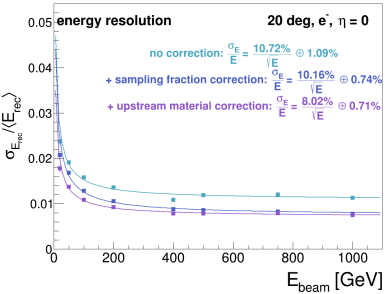
- 0.425 #X_0/cm
- 2 mm absorber
- 1 mm readout
- **1607 planes, 78 cm long**
- **2.75 – 5.8 mm lAr gap (112% ↑)**

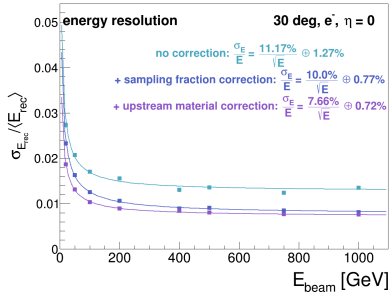
Energy resolution: **no** corrections

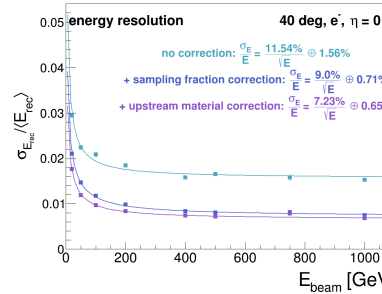


no corrections for sampling fraction changing with radius
→ best geometry with smallest lAr gap increase (20deg)

Impact of the corrections







larger inclination angle

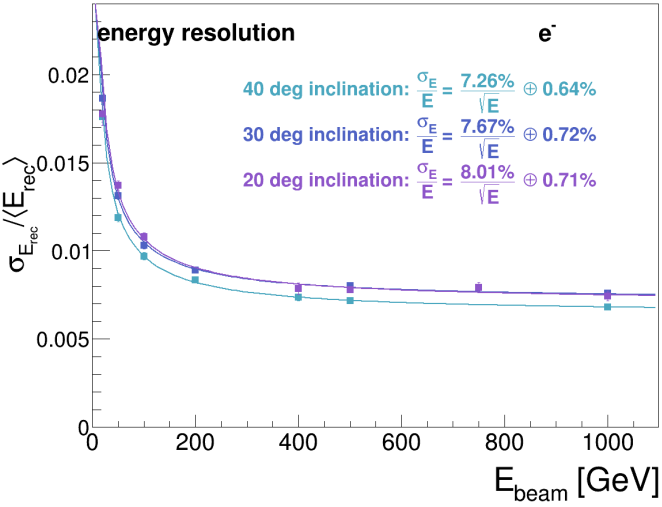
↓

larger opening of lAr gap

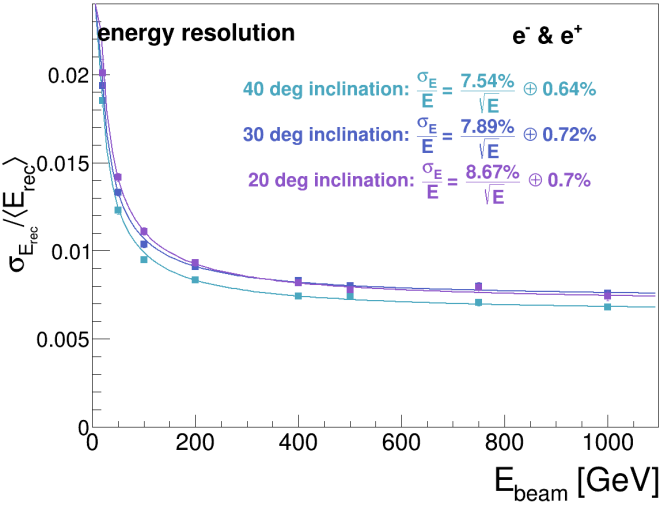
↓

larger the impact of the sampling fraction correction

Energy resolution: after corrections



Energy resolution: after corrections - combined with positrons



small sample (1k) of positrons simulated up to 500 GeV