

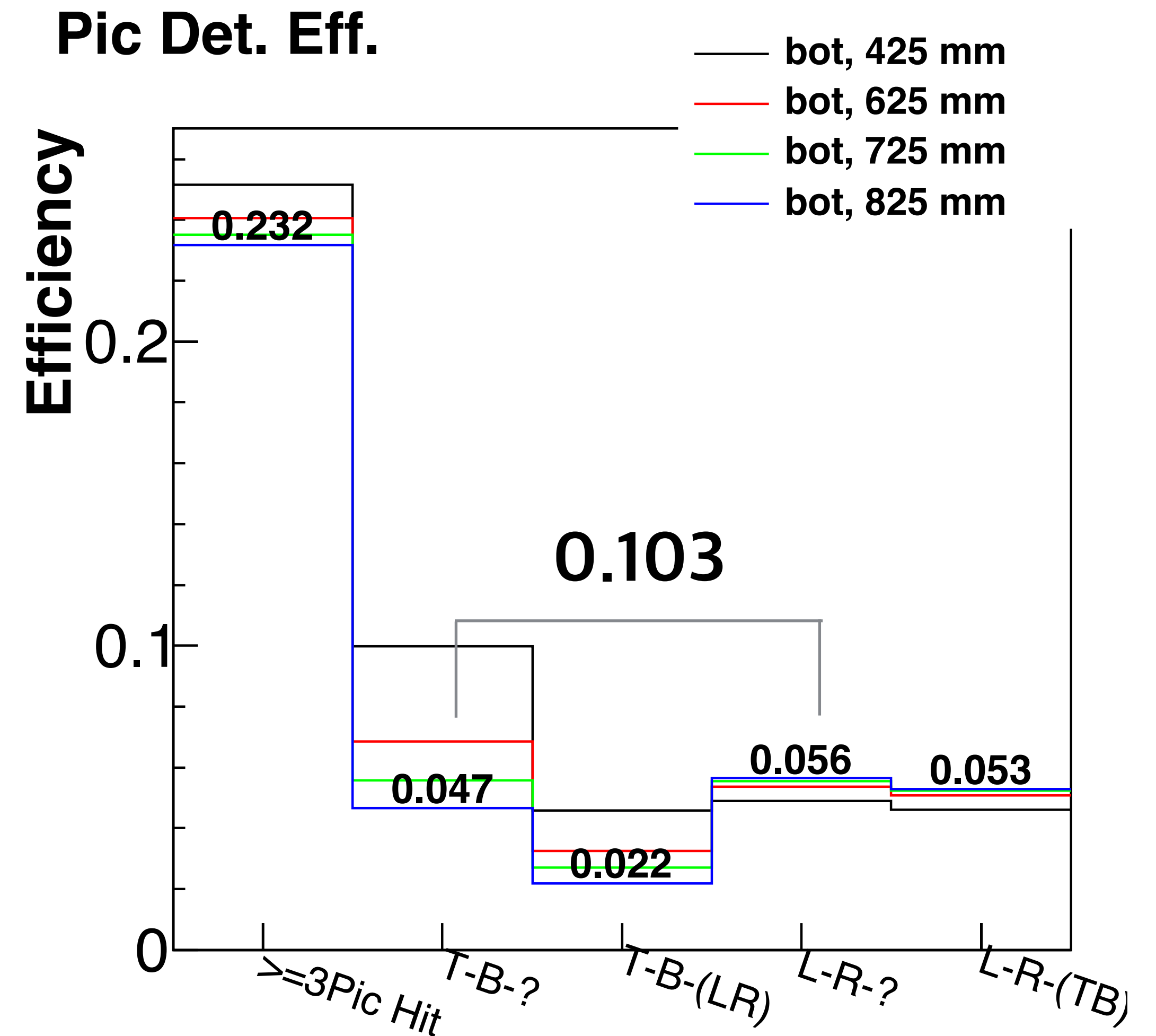
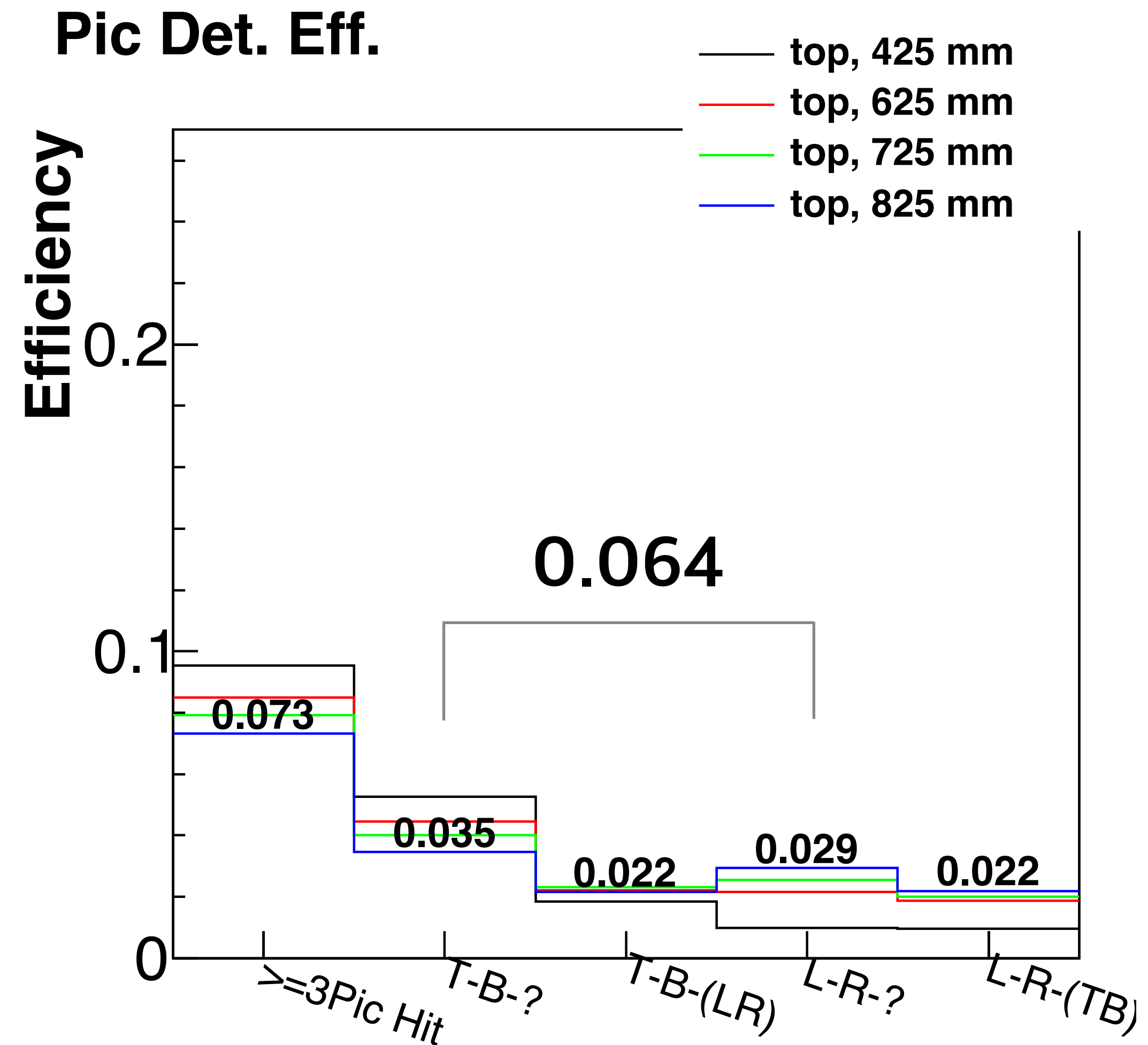
Status report (31 Oct. 2016)

Jongwon Hwang

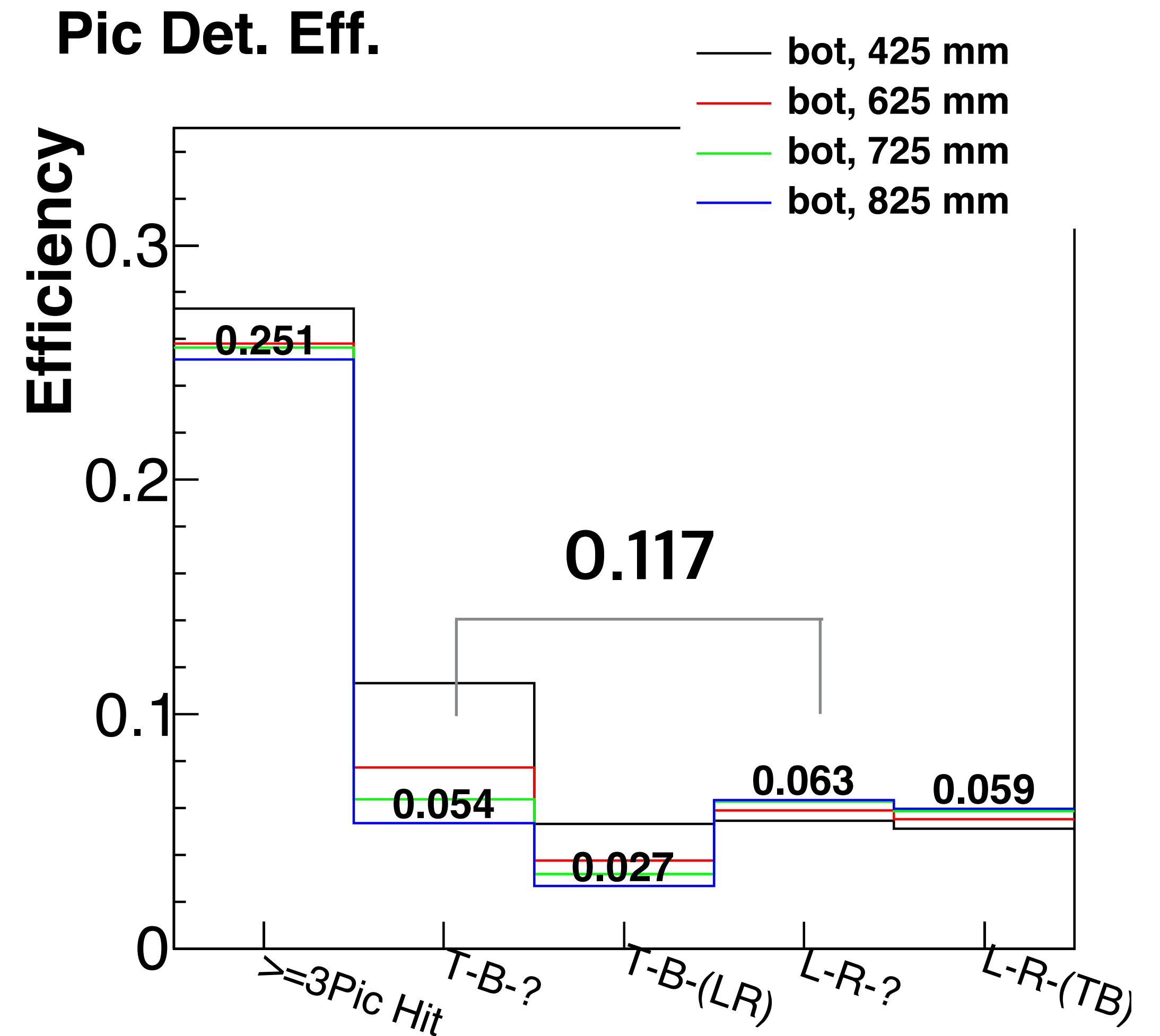
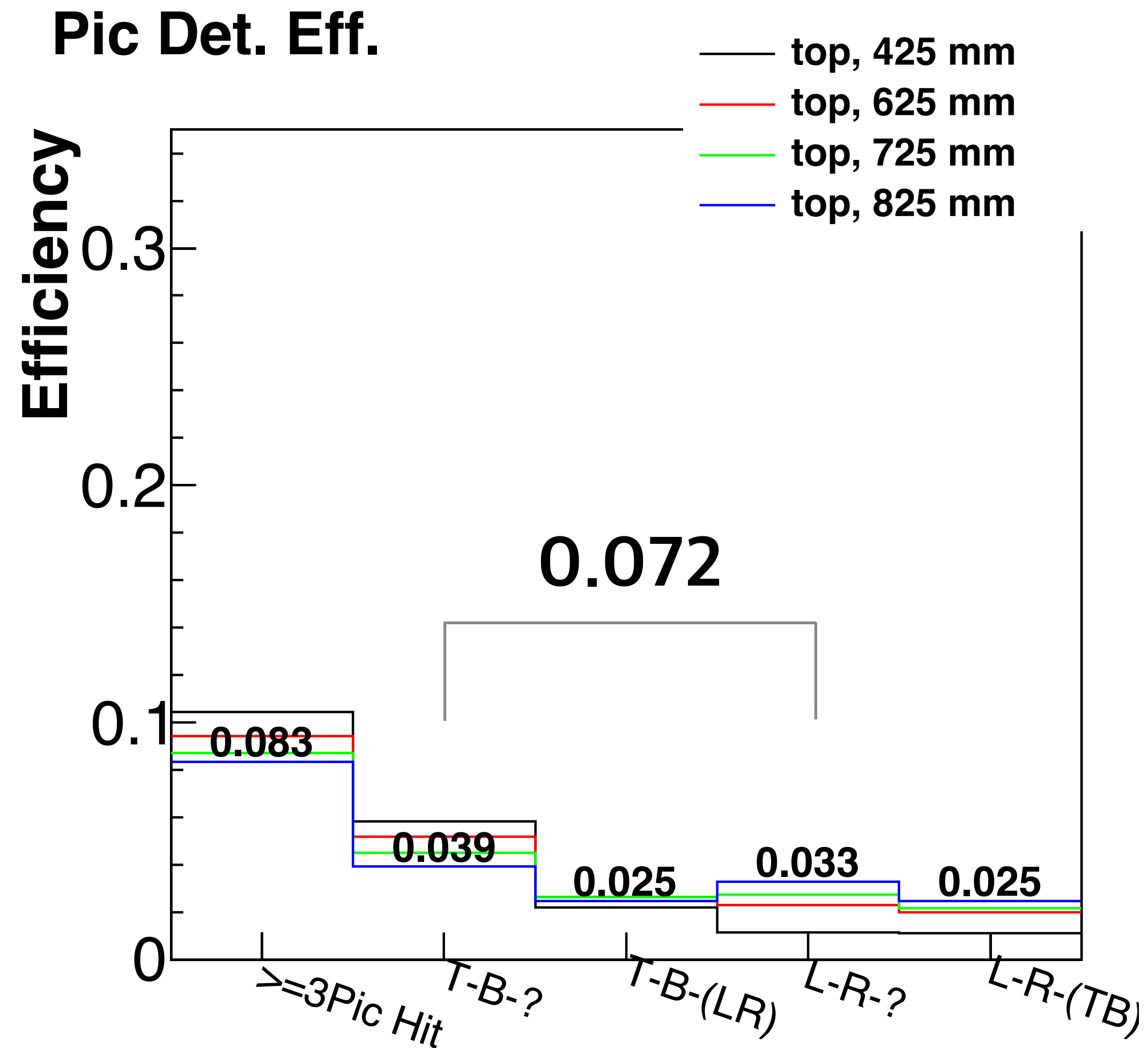
Detector Geometry

- Length of the plastic bars
 1. Original (All 170 cm)
 2. All 200 cm
 3. TB: 250 cm / LR: 170 cm

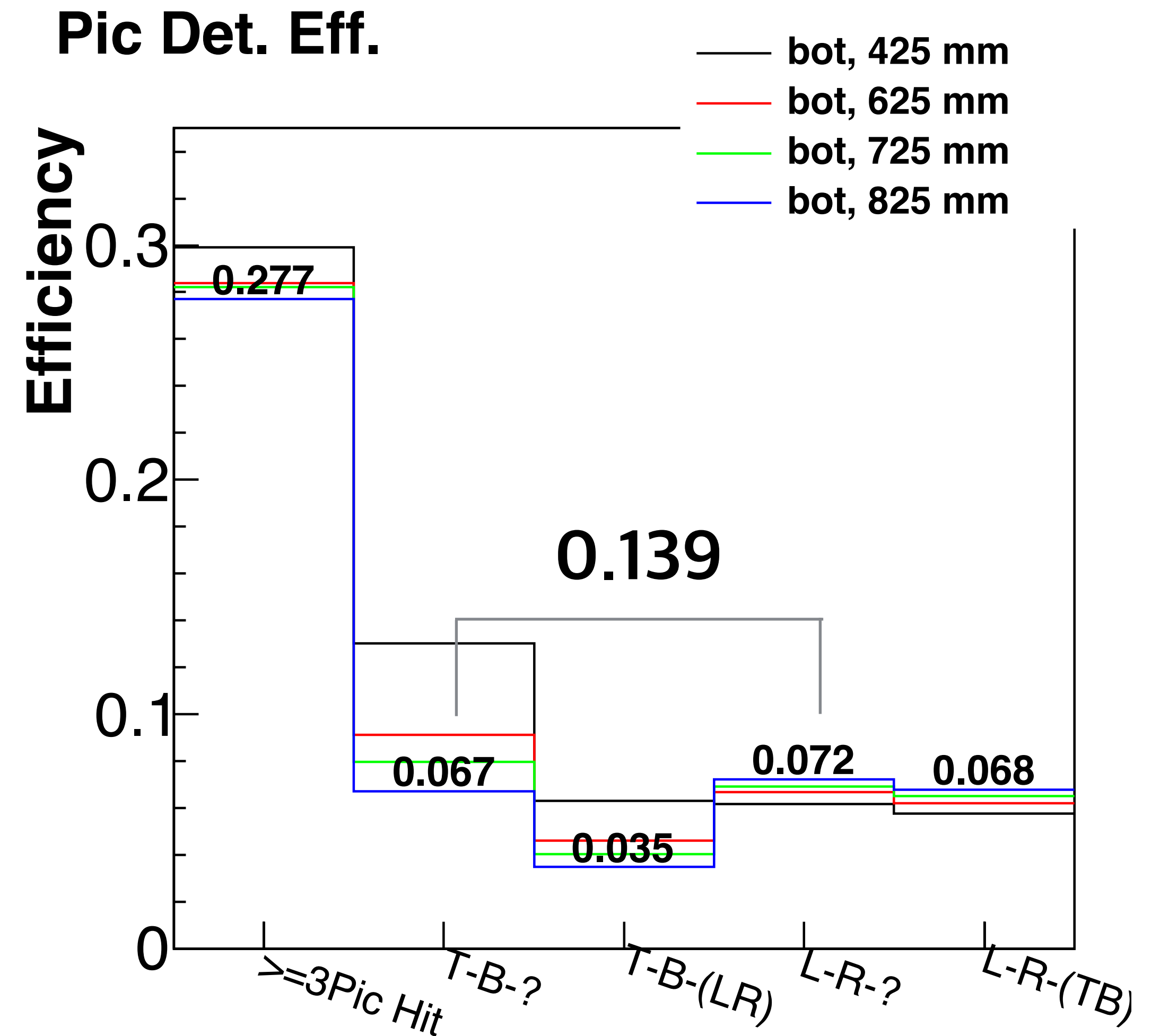
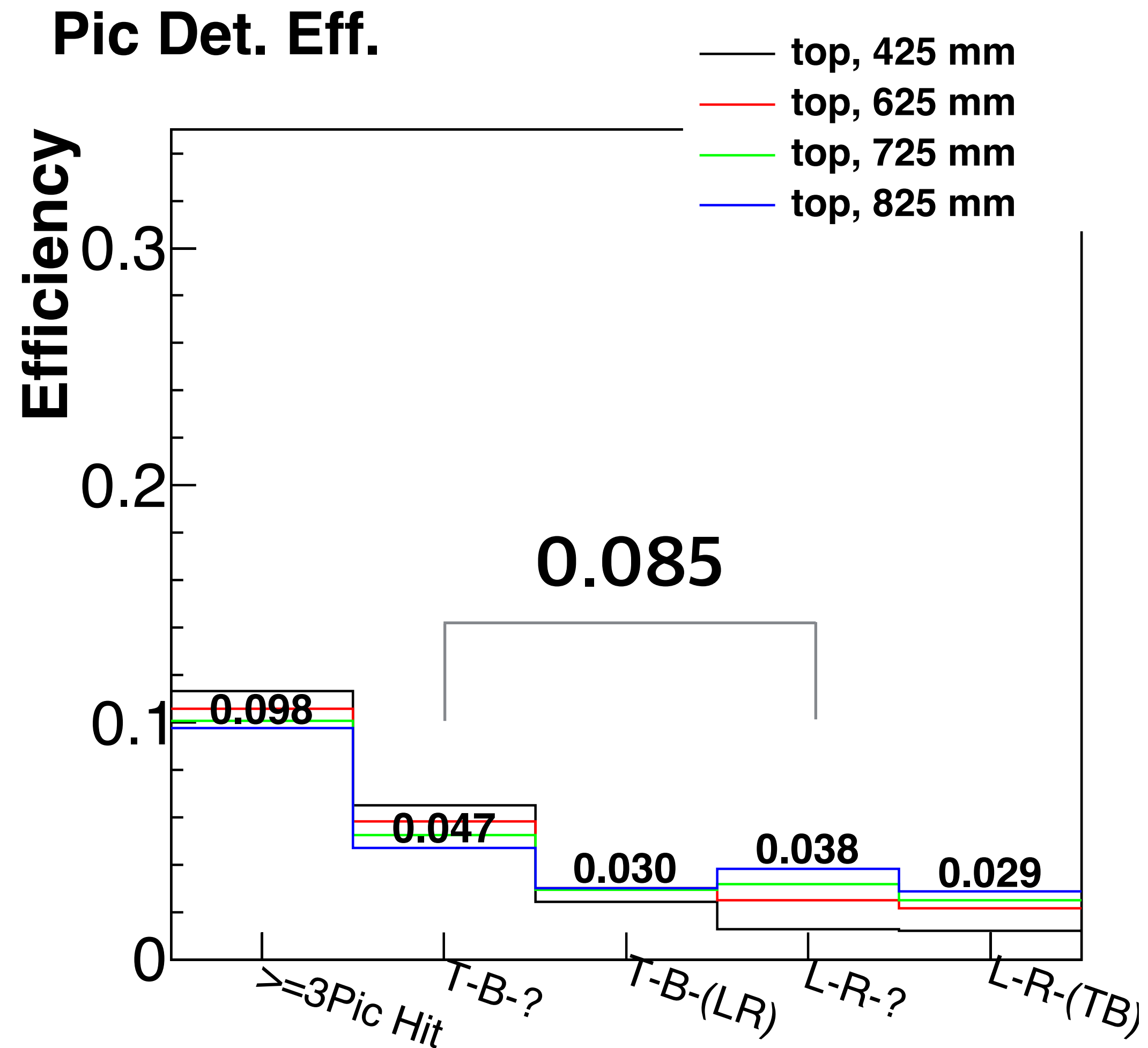
3-Pic Detection Efficiency



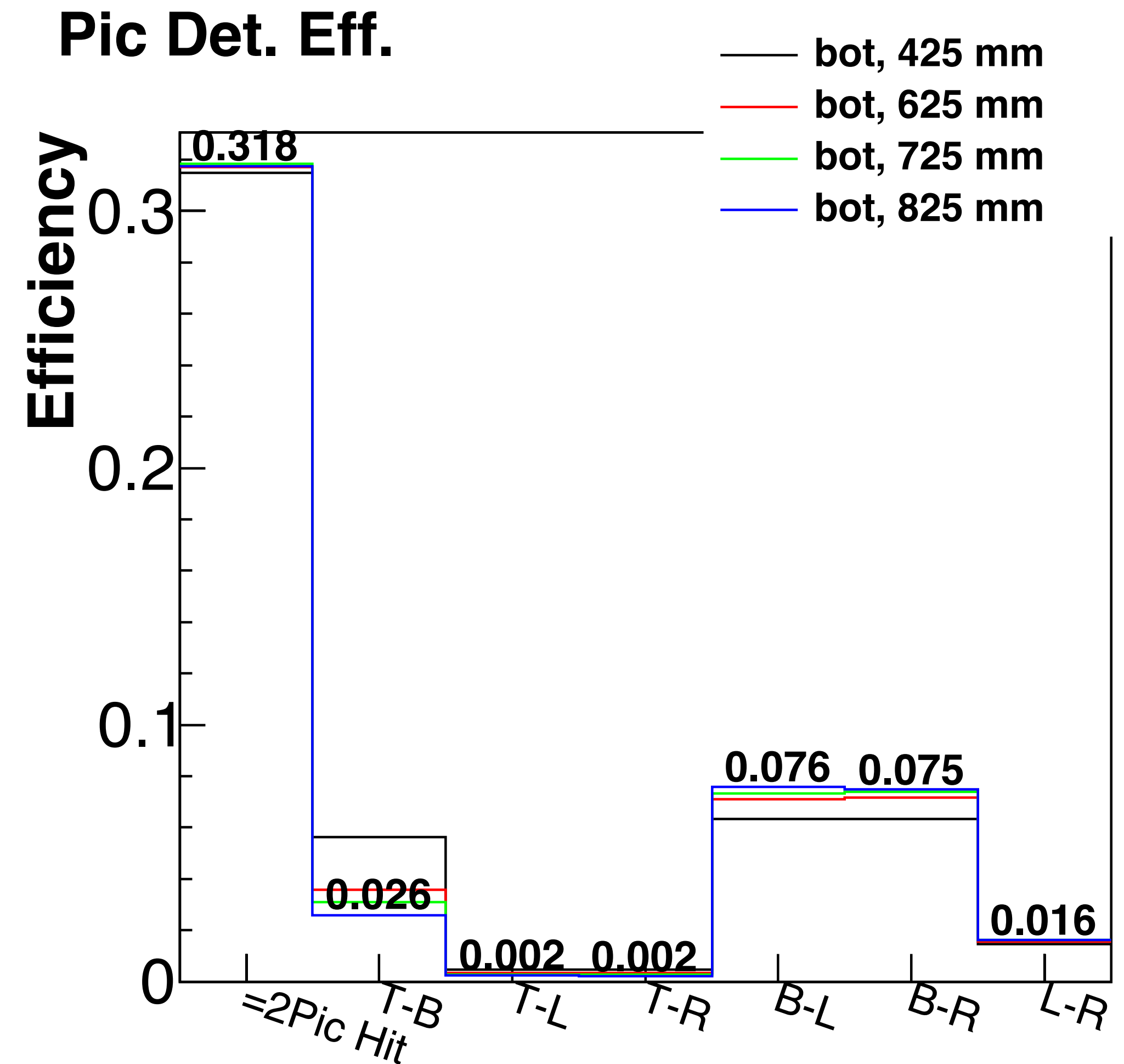
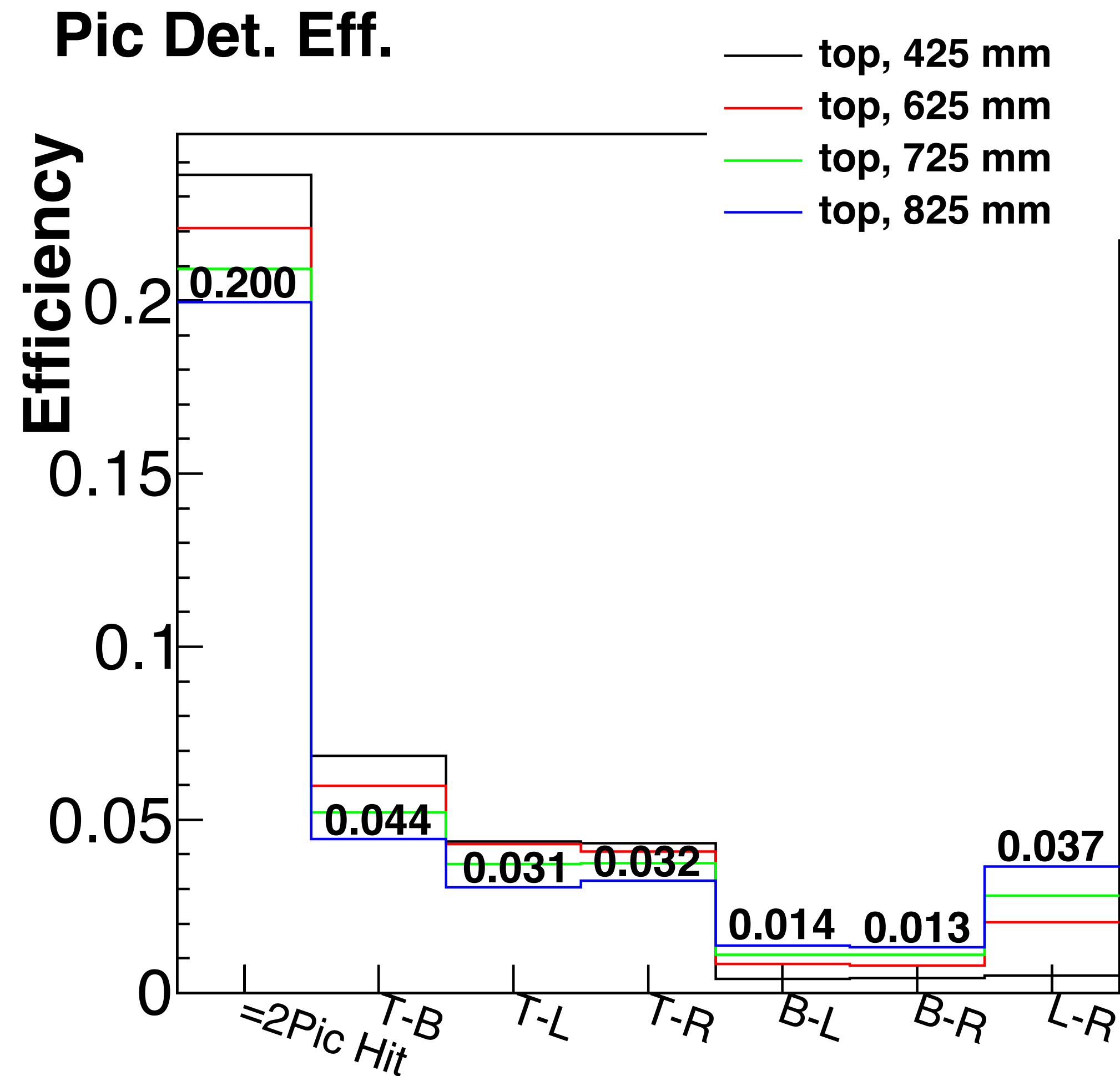
3-Pic Detection Efficiency (200 cm-All)



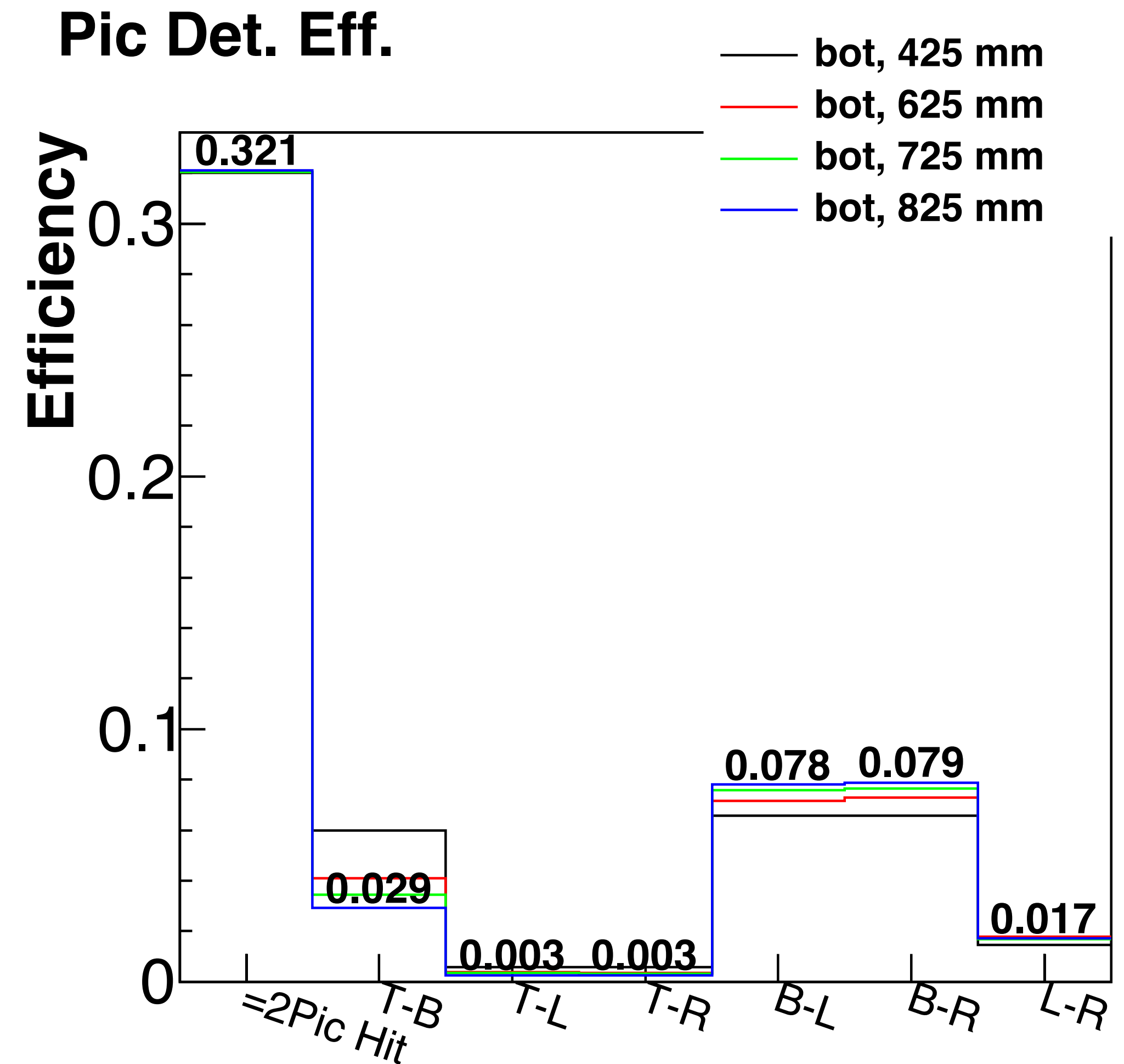
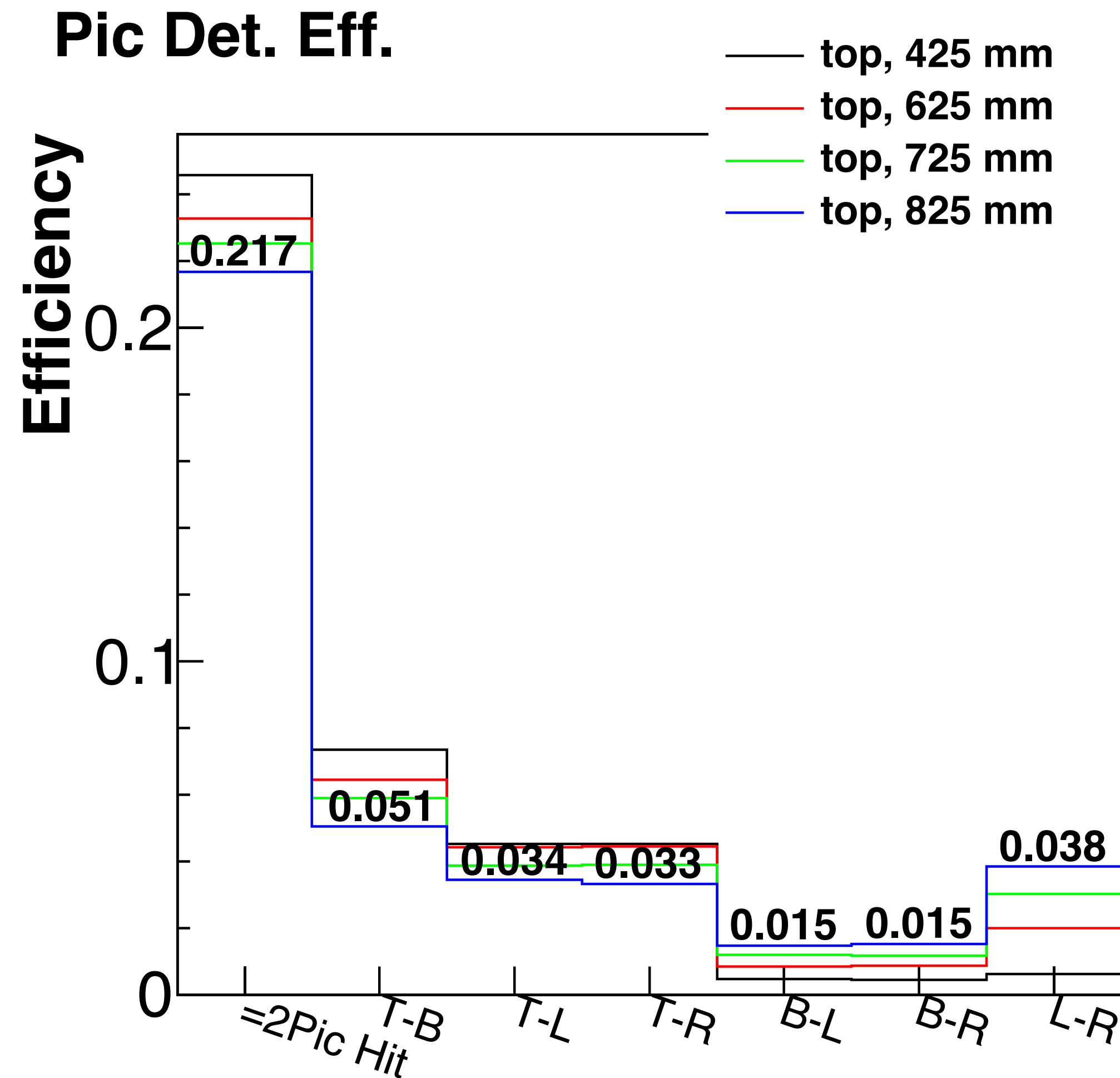
3-Pic Detection Efficiency (250 cm-TB)



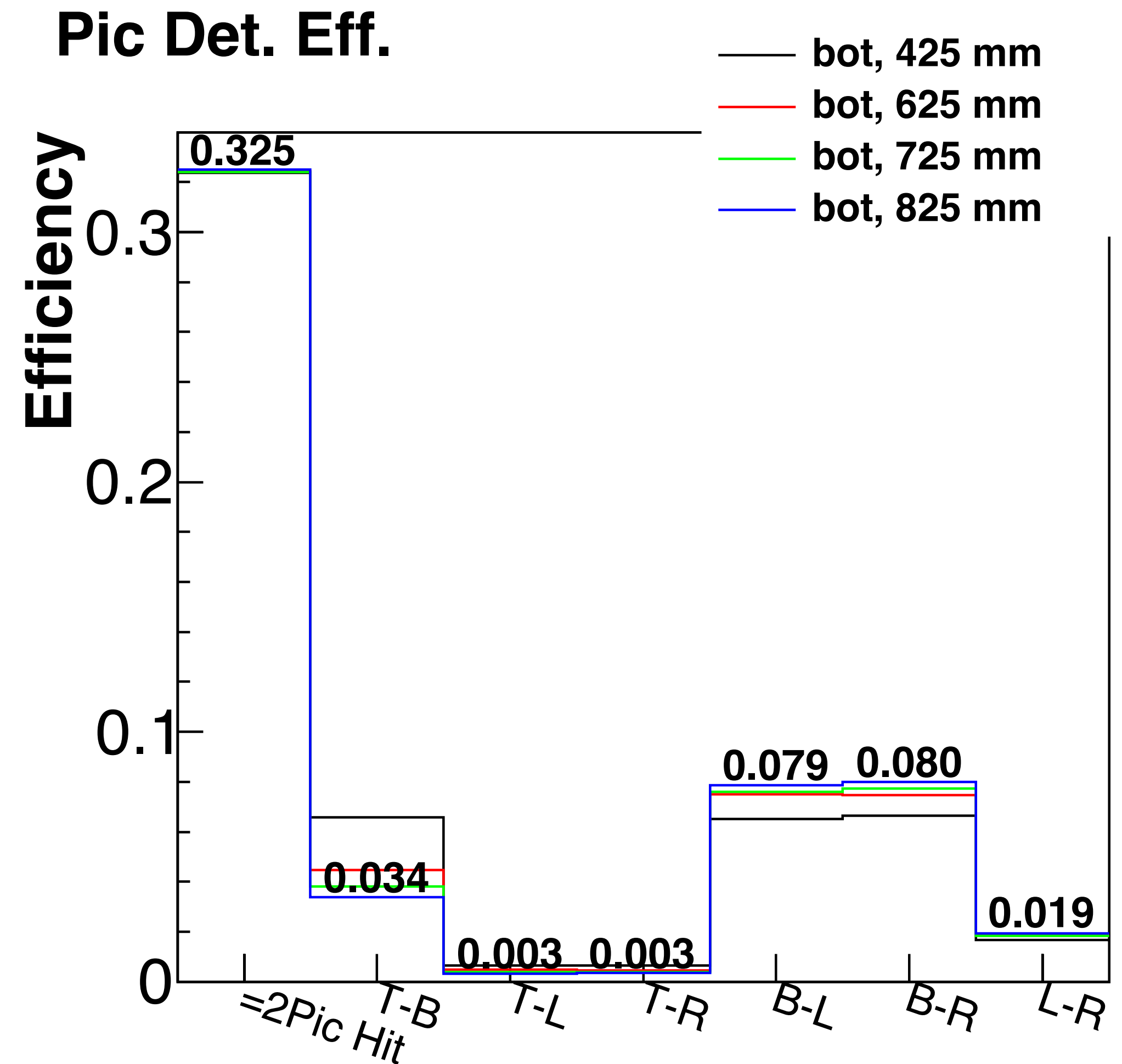
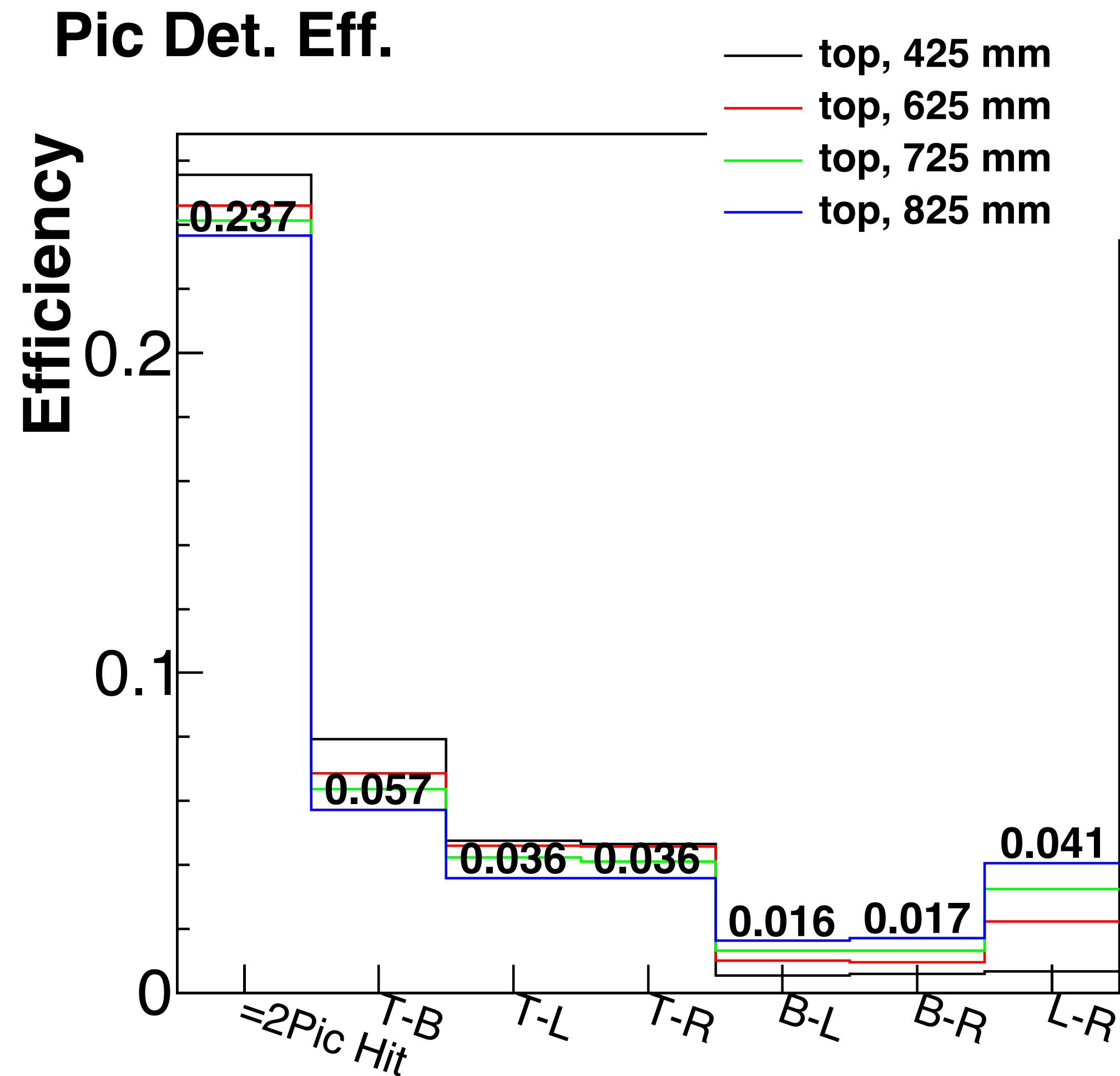
2-Pic Detection Efficiency



2-Pic Detection Efficiency (200 cm-All)



2-Pic Detection Efficiency (250 cm-TB)



Detector Geometry

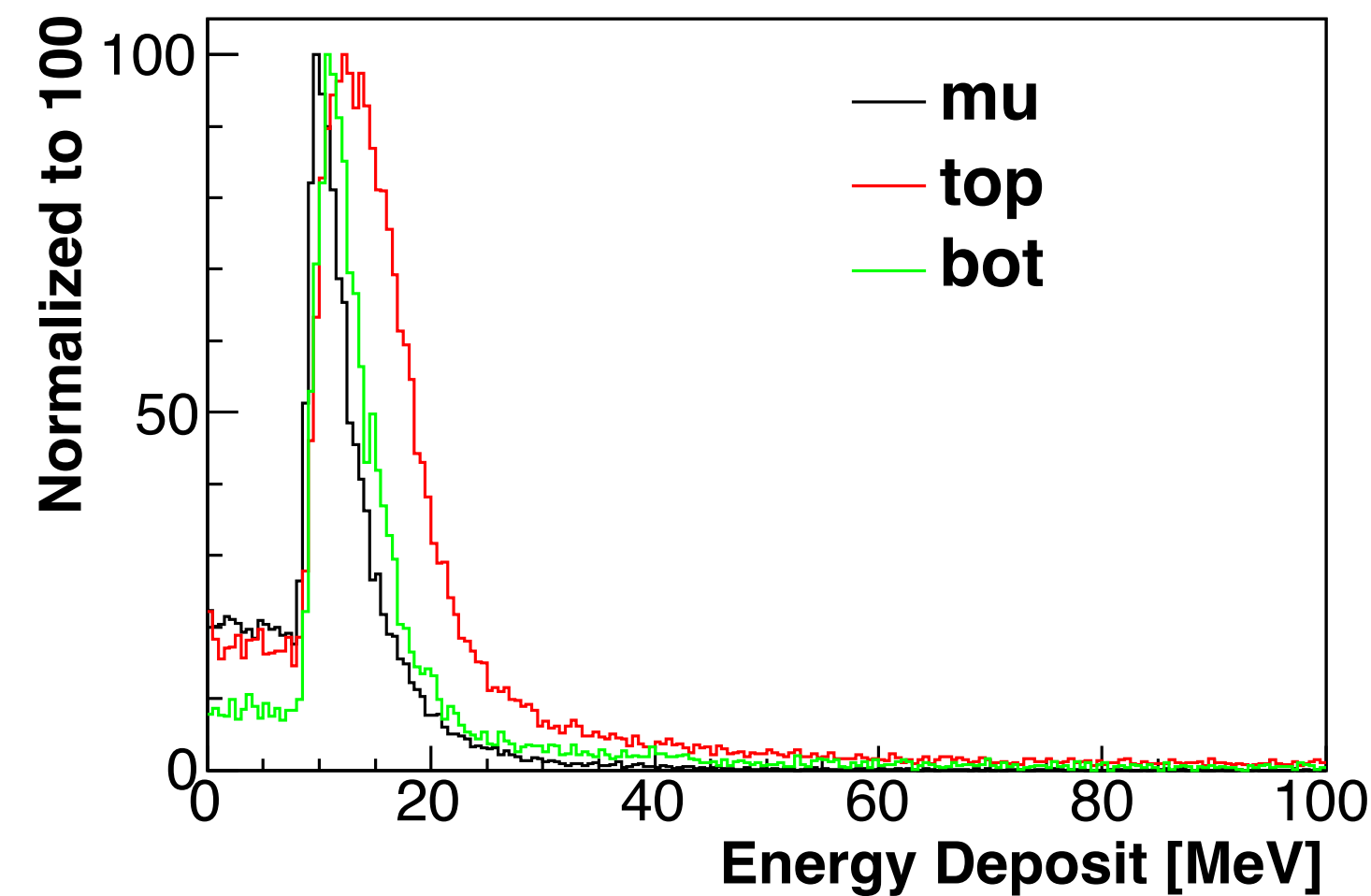
- Length of the plastic bars
 - Original (All 170 cm)
 - All 200 cm
 - TB: 250 cm / LR: 170 cm

	2 Layer Hits (T-B)	3 Layer Hits (T-B-?)	Sum
Original	4.4% / 2.6%	3.5% / 4.7%	7.9% / 7.3%
All 200 cm	5.1% / 2.9%	3.9% / 5.4%	9.0% / 8.3%
TB 250 cm	5.7% / 3.4%	4.7% / 6.7%	10.4% / 10.1%

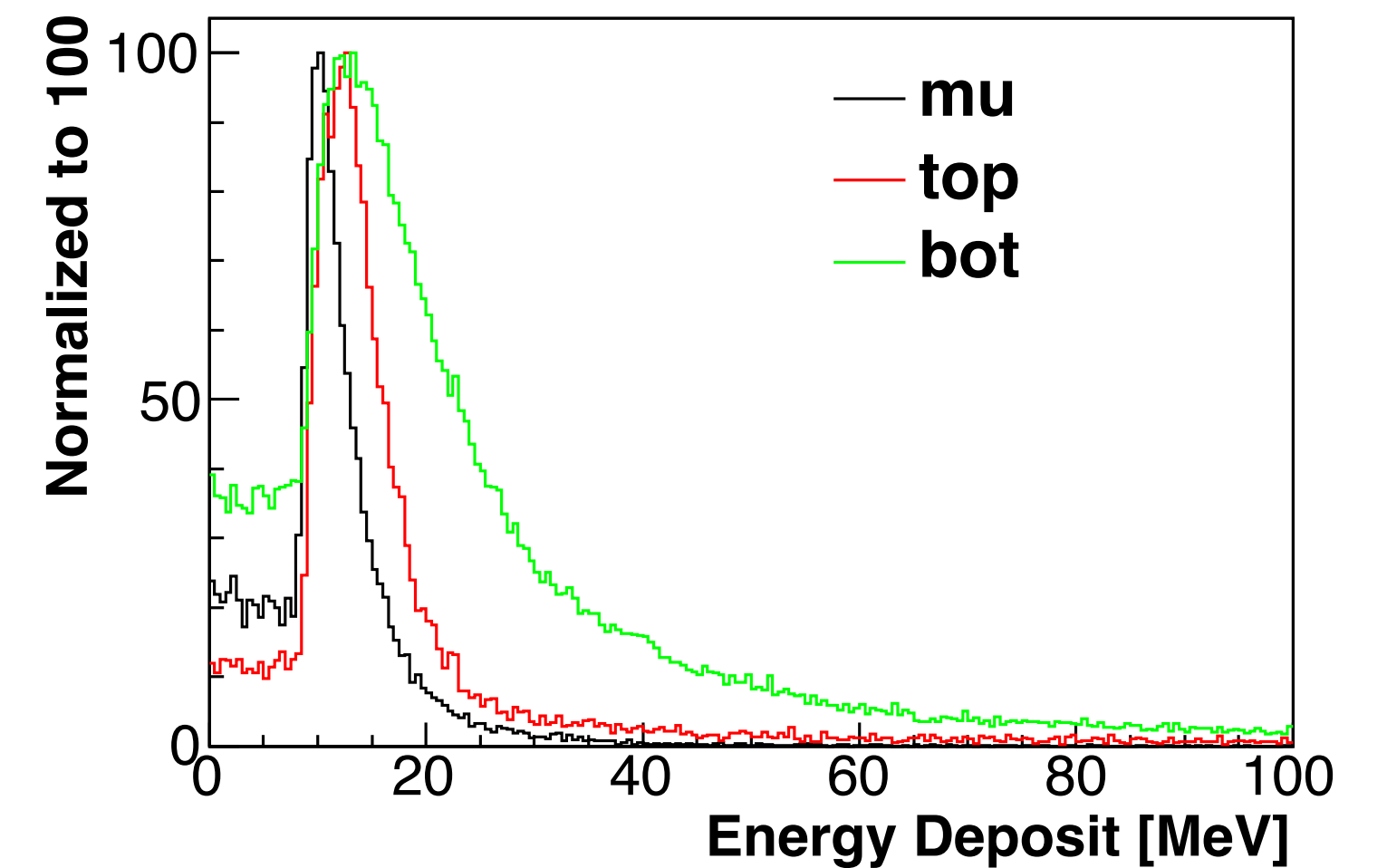
Energy Deposit: Muon / Anti-proton

- Energy loss in each detector (TBRLR)
- Both muon and anti-proton ann.: peak rising at 8 MeV

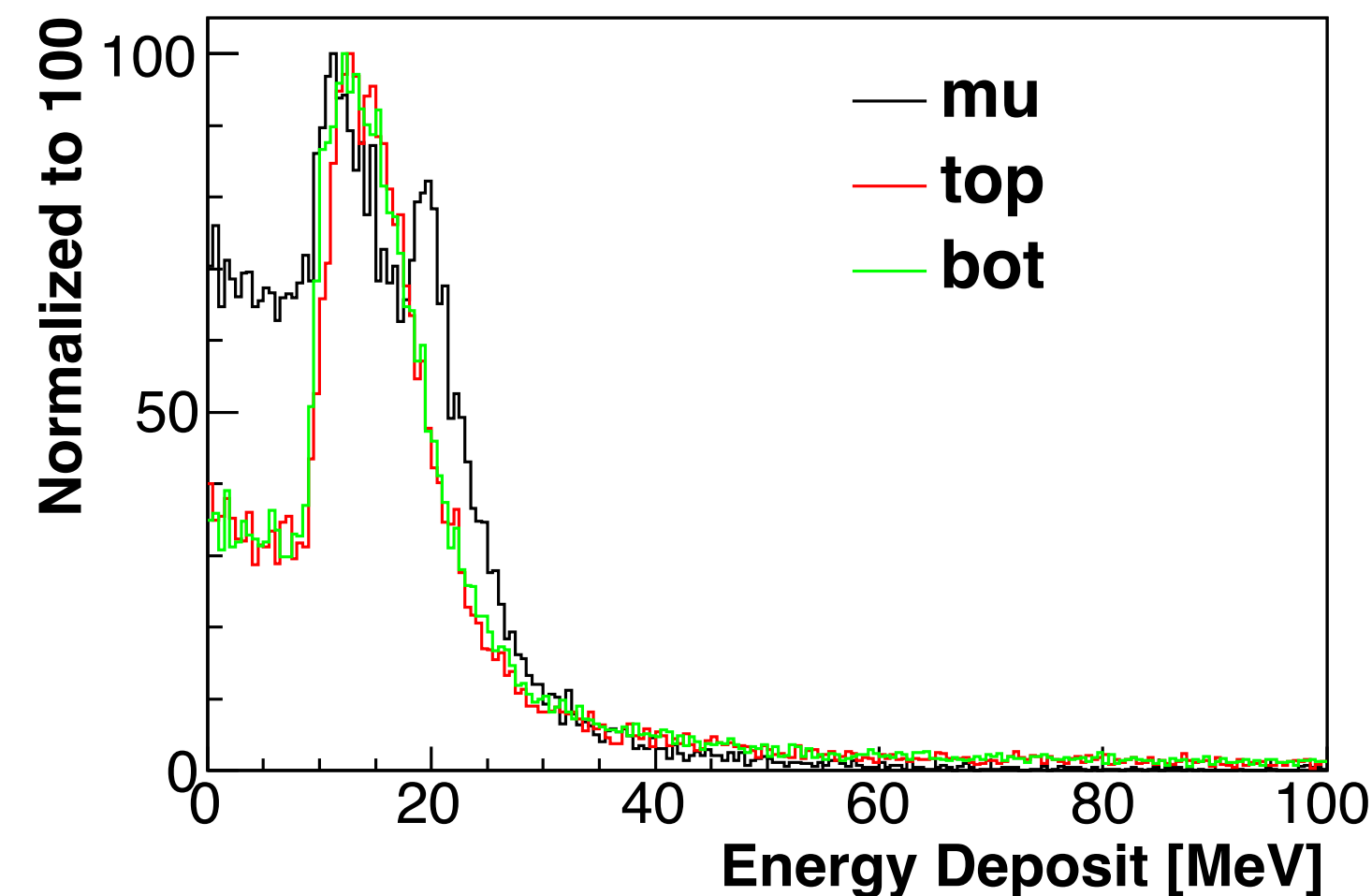
topE



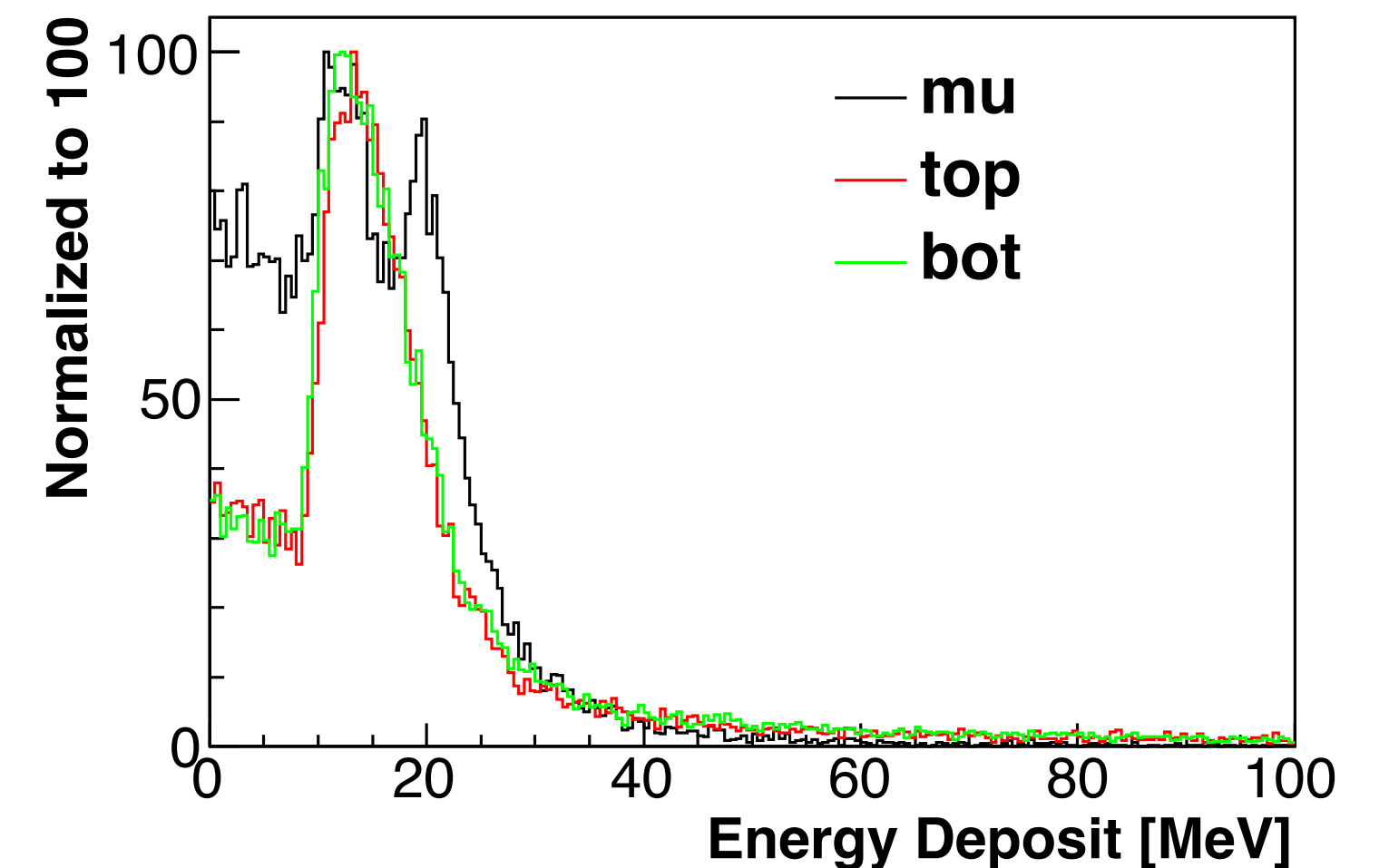
botE



lefE



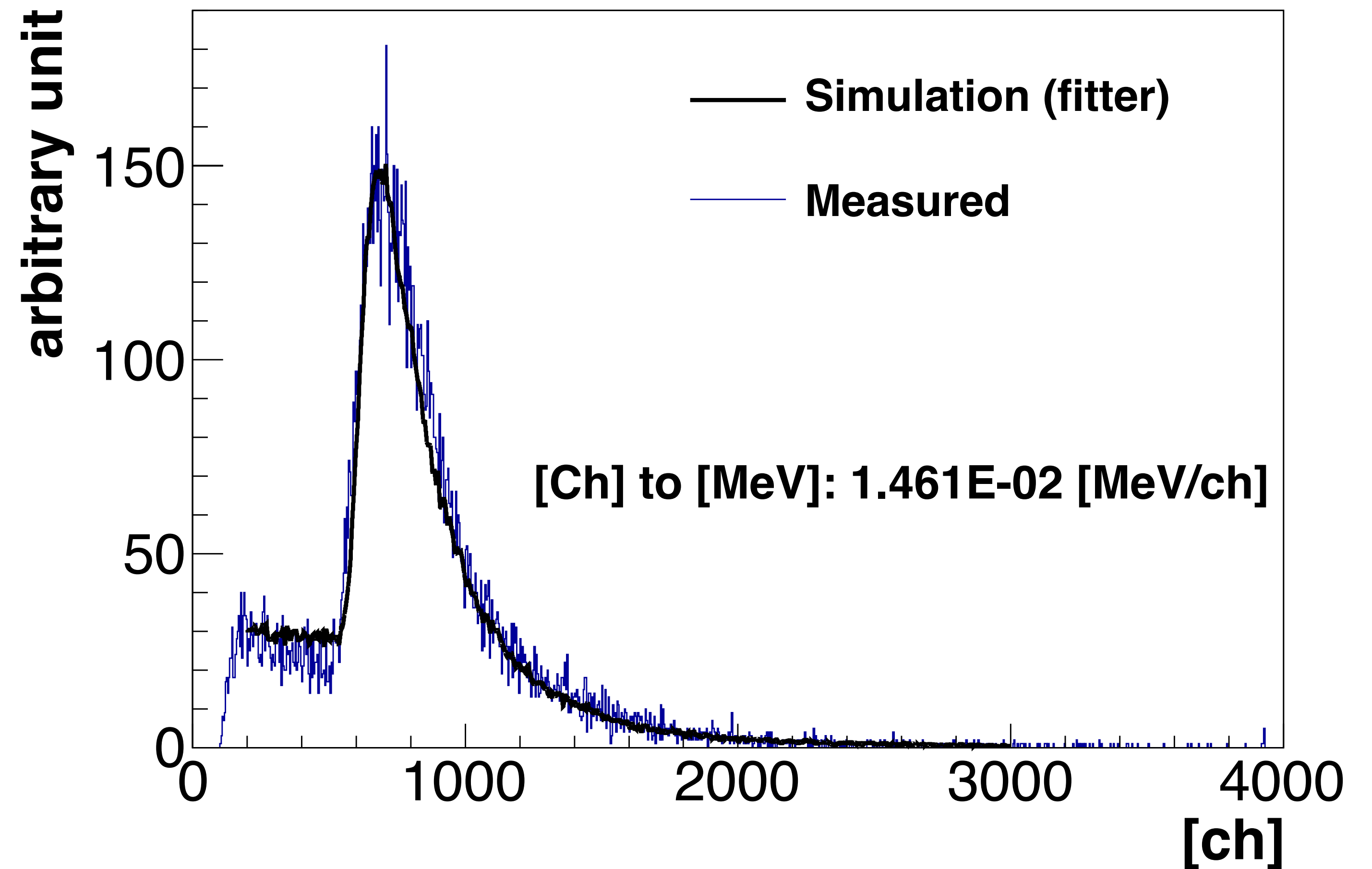
rigE



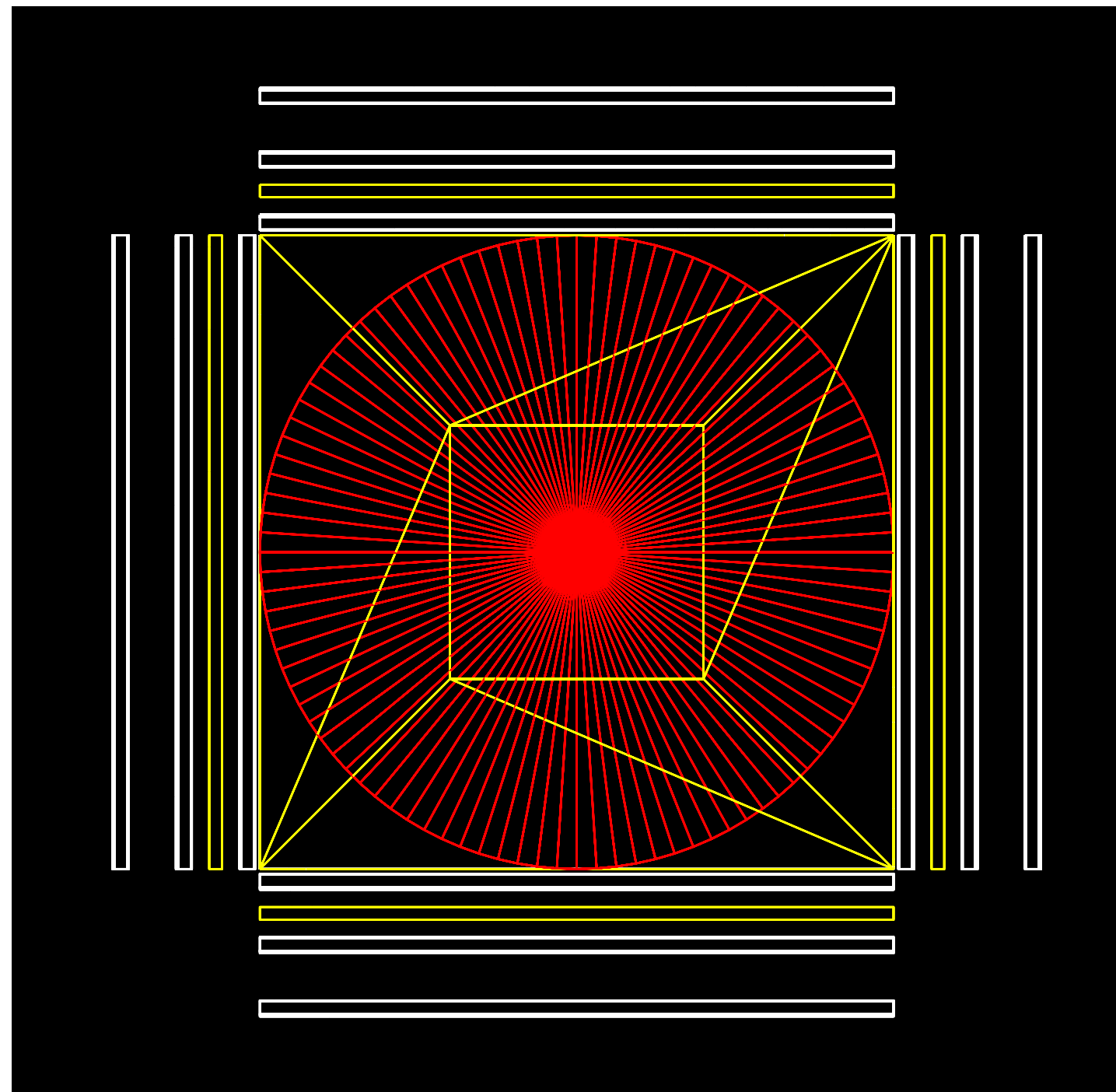
Plastic Bar: Cosmic muon energy

Mu Energy Loss

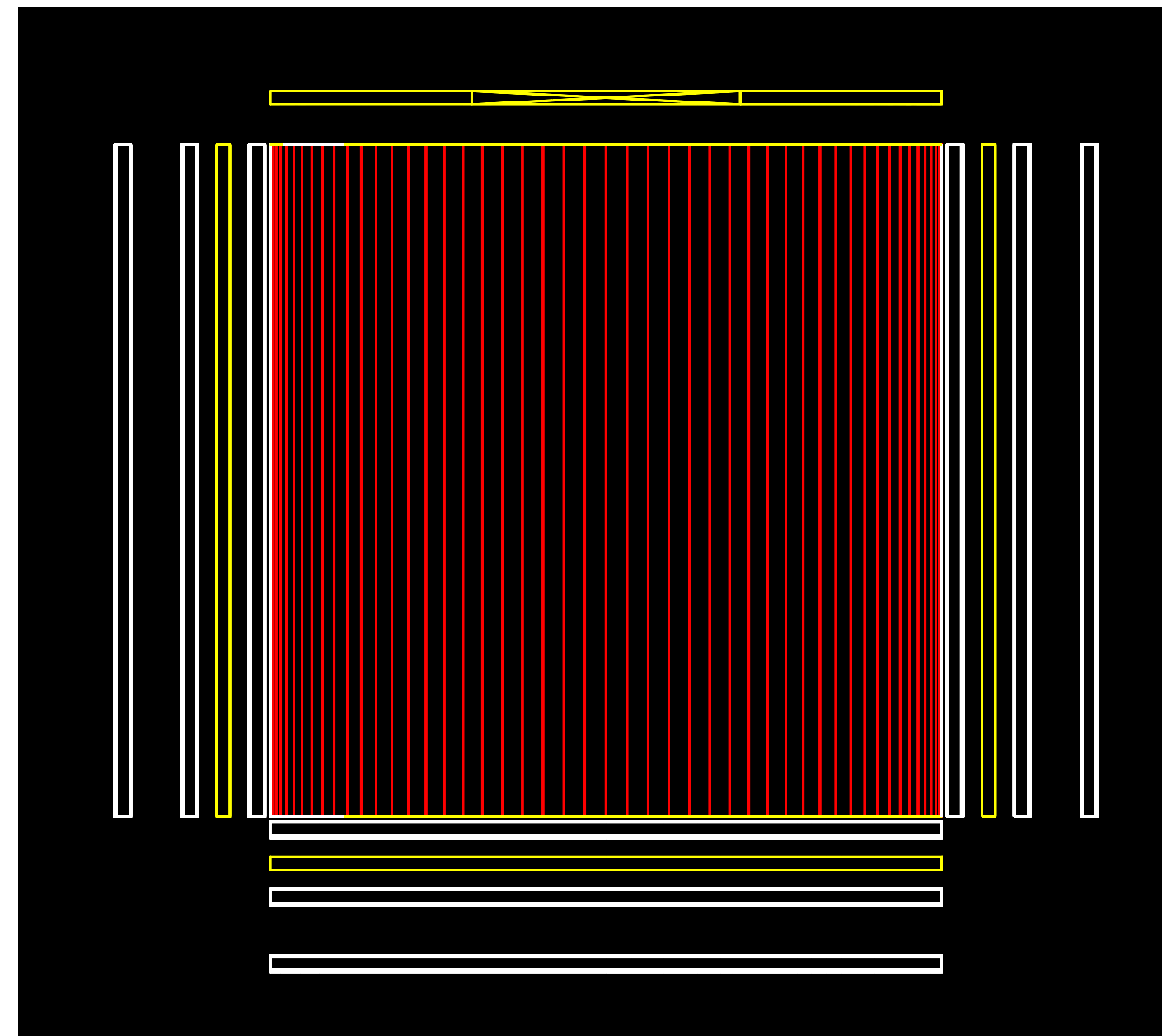
- Muon Energy Loss
 - Simulation (No artificial energy resolution)
 - Measurement
- Fitting
 - $y = p_0 \times f(p_1 \times x)$



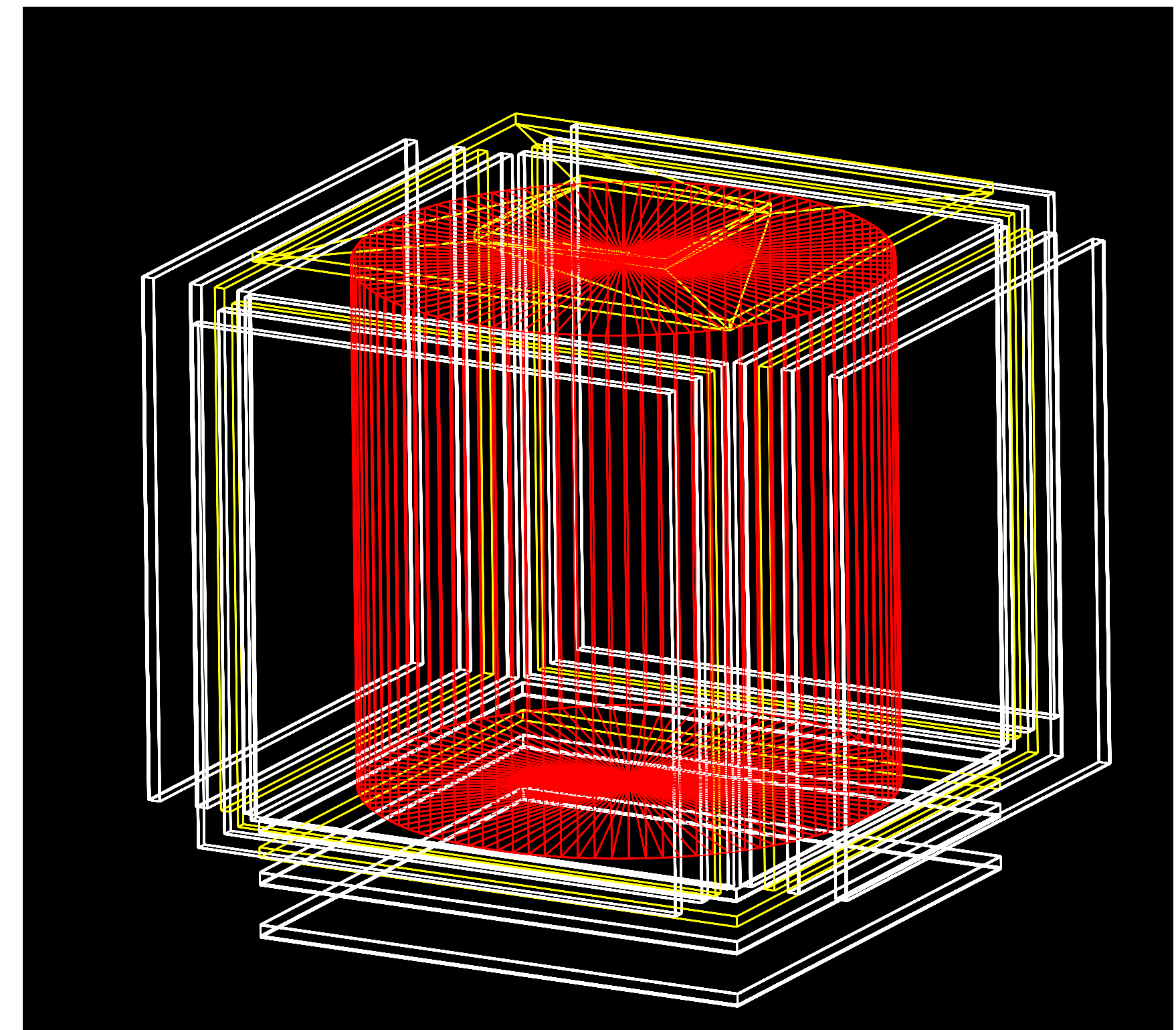
GBAR simulation



Top View



Side View



Quarter View

Red: free-fall chamber / Yellow: scintillator(?) / White: MicroMegas