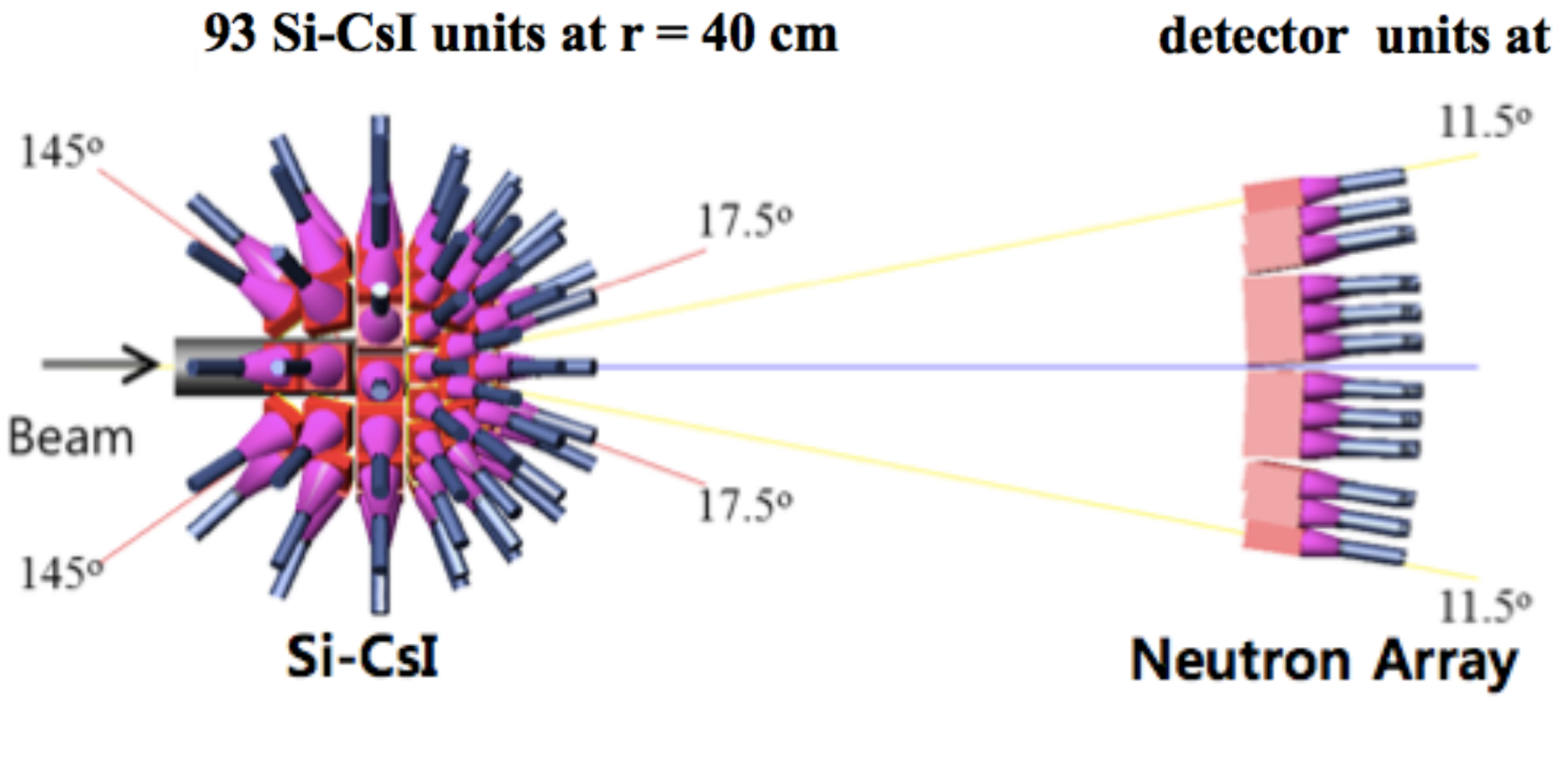
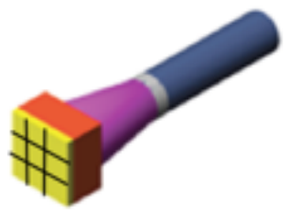
Large Acceptance Multi-Purpose Spectrometer (LAMPS) - low energy

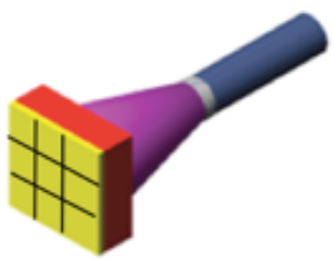


SiCsI Geometry

Total 58 detector units
($17.5^{o} < \theta_{lab} < 77.5^{o}$)
9 x 9 x 0.01 cm^3 Si (3 x 3 Pad)
9 x 9 x 5 cm^3 CsI (PMT readout)



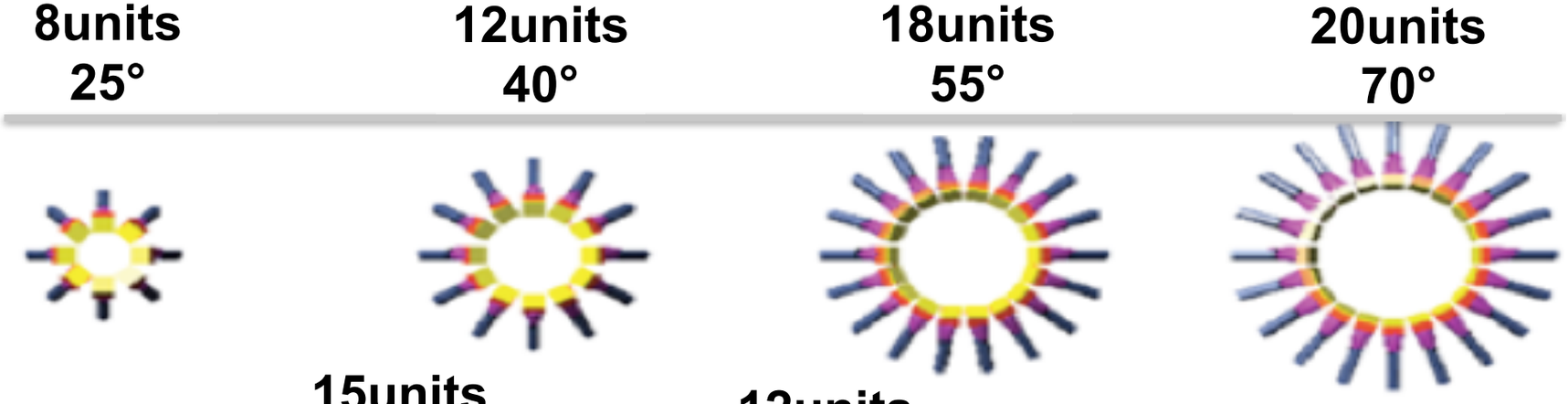
Total 35 detector units
($78^{o} < \theta_{lab} < 150^{o}$)
15 x 15 x 0.01 cm^3 Si (3 x 3 Pad)
15 x 15 x 5 cm^3 CsI (PMT readout)



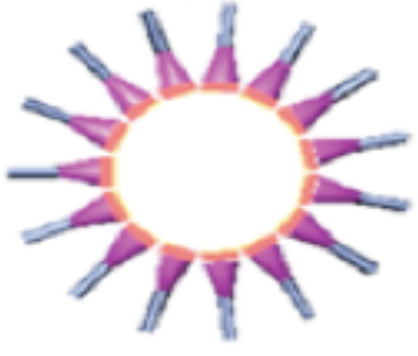
CsI(T1) cover polar angle 17.5° ~ 150°
17.5° ~ 77.5° : 4 detector pieces
(15° interval)

78° ~ 150° : 3 detector pieces
(24° interval)

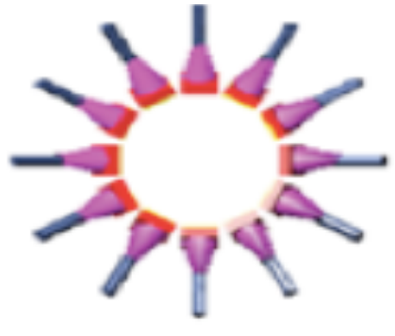
8units **12units** **18units** **20units**
25° **40°** **55°** **70°**



15units
90°



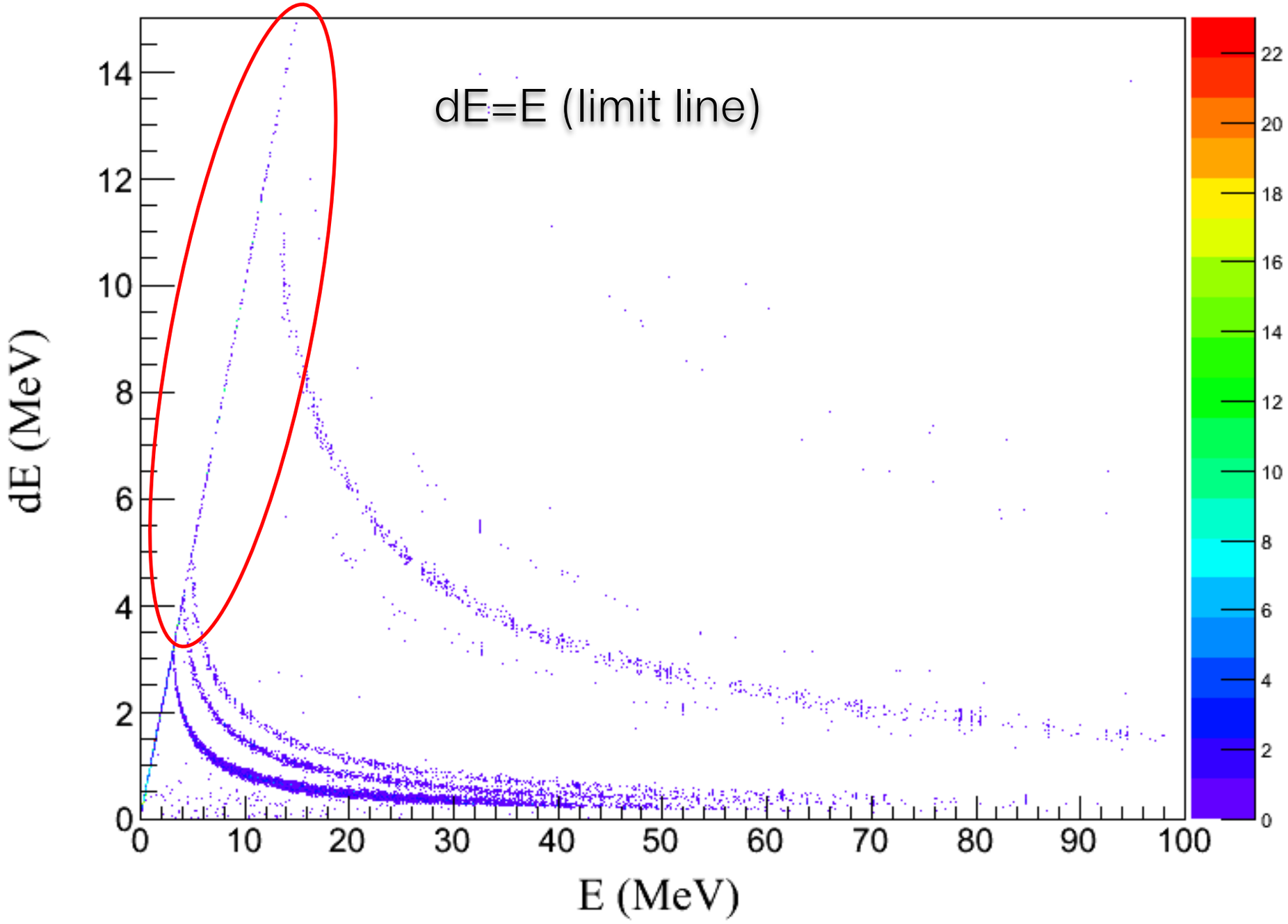
12units
114°



8units
138°

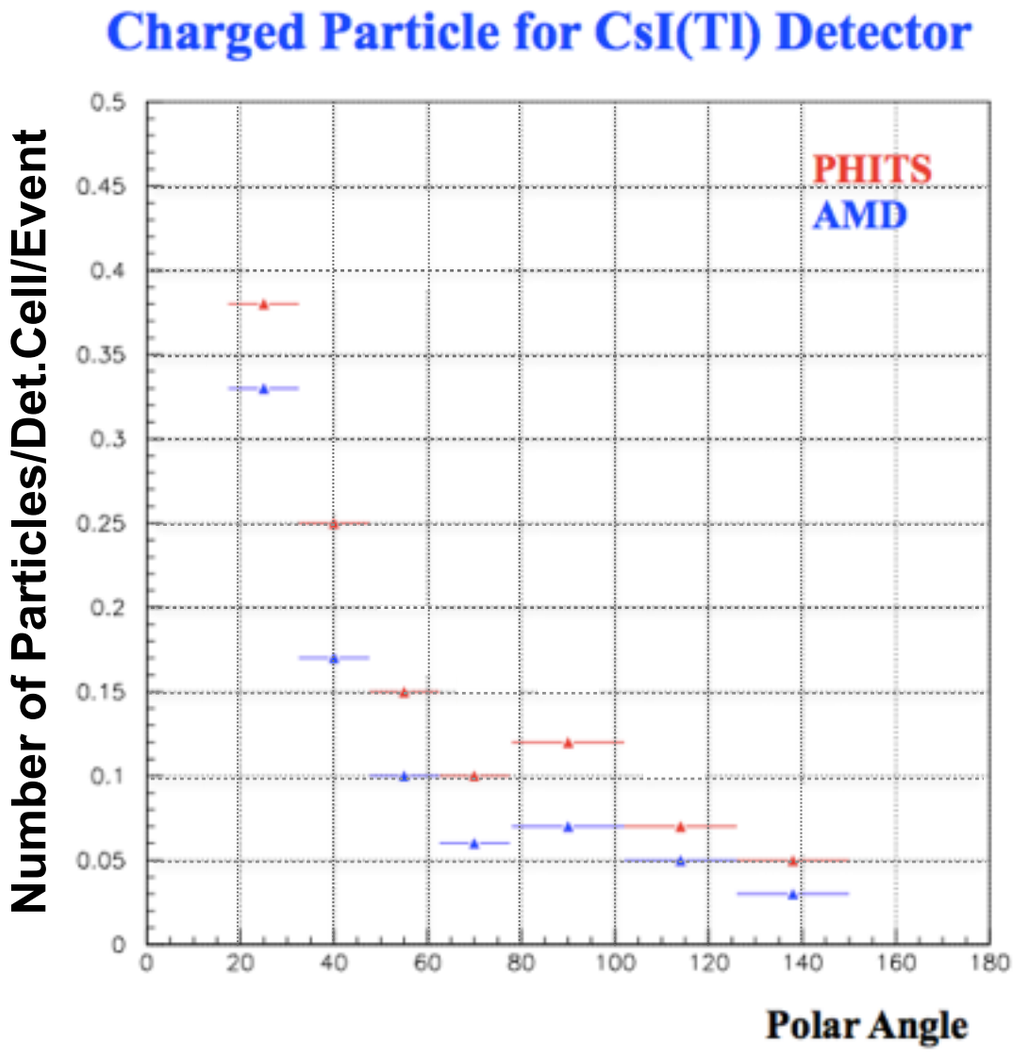
PID dE vs E

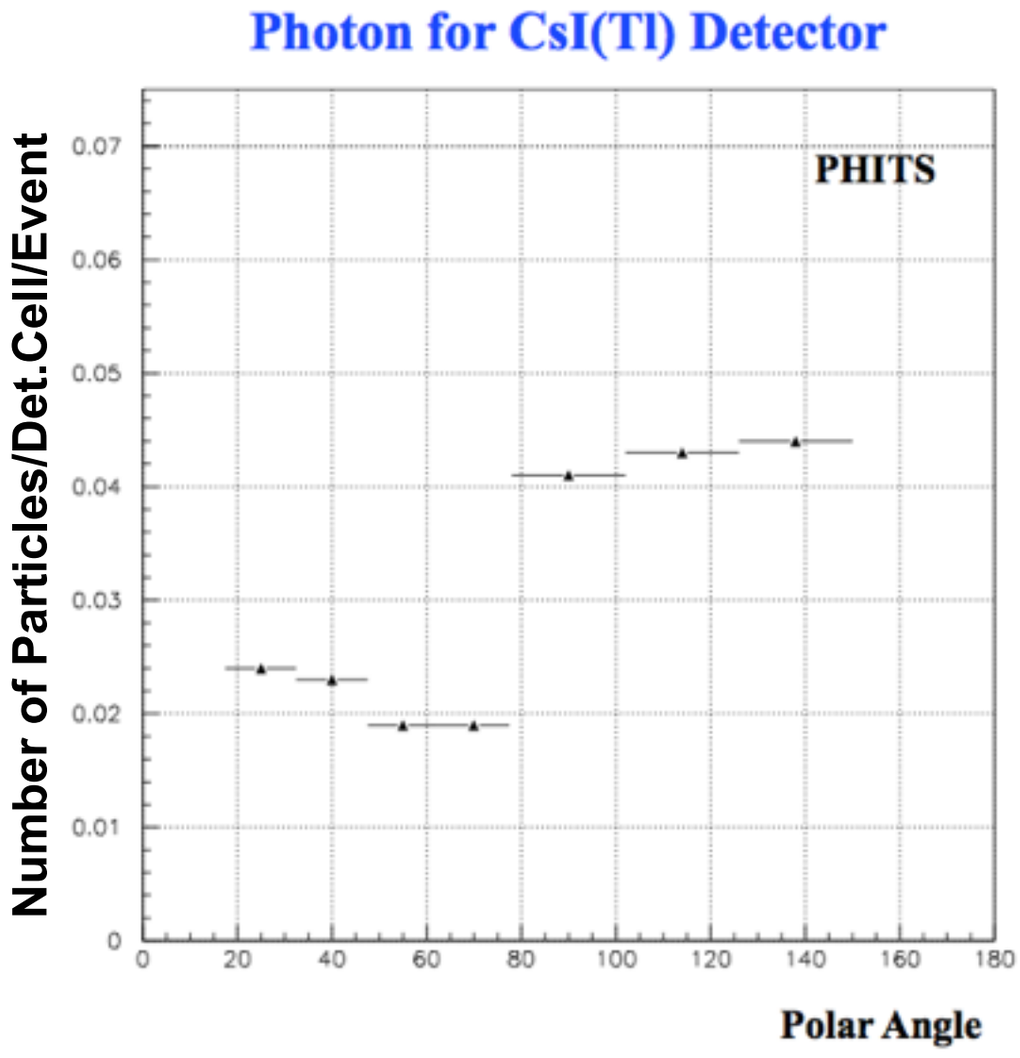
<All AMD data>



Back- up

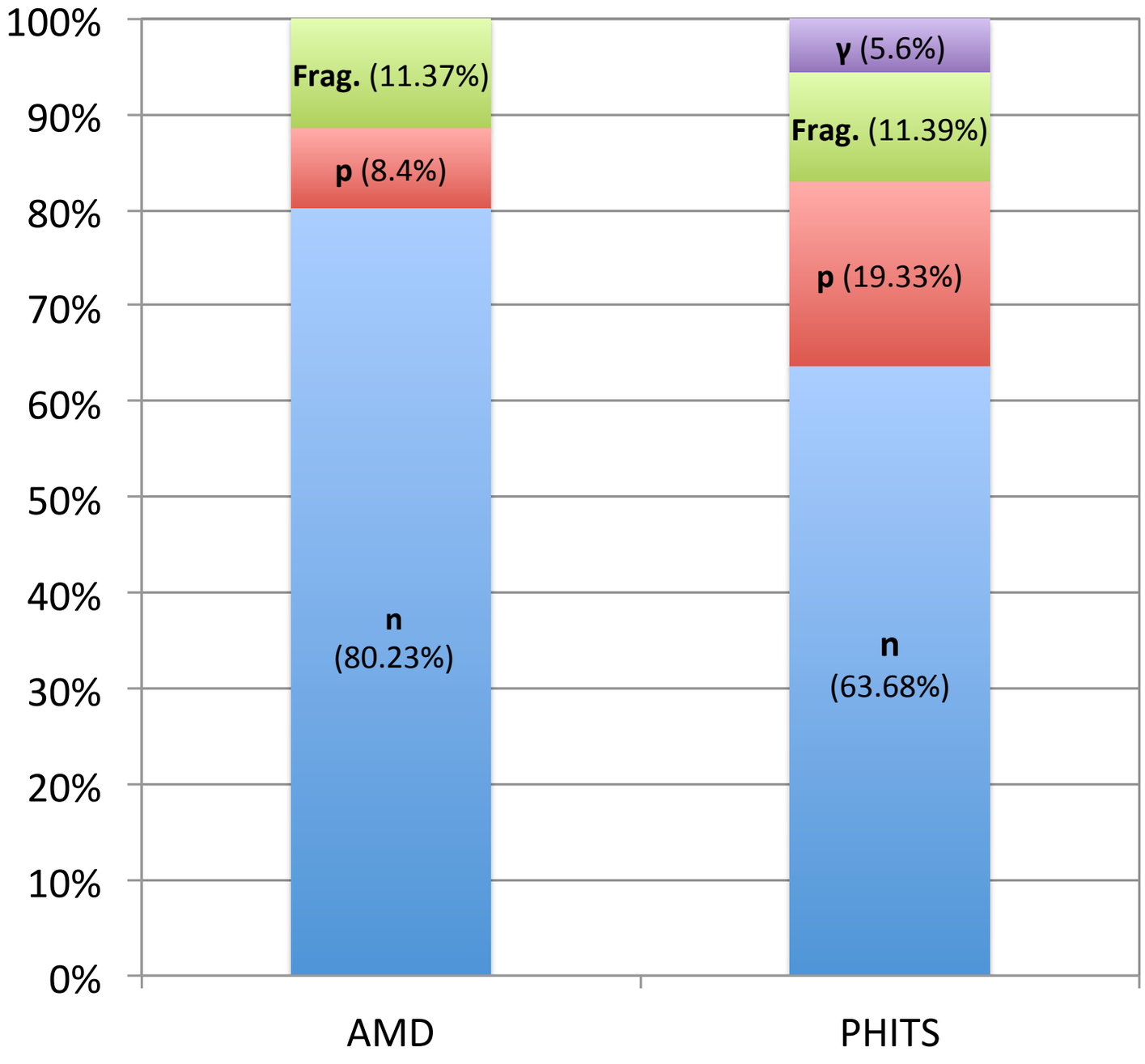
Design of Si/CsI for LAMPS-L





CsI(T1) cover polar angle 17.5° ~ 150°
17.5° ~ 77.5° : 4 detector pieces 15° interval
78° ~ 150° : 3 detector pieces 24° interval

AMD & PHITS



AMD : $^{132}Sn + ^{124}Sn$ - (20 MeV/u)
impact parameter : b = 0
N_{event}=2010

PHITS : $^{132}Sn + ^{124}Sn$ - (18.5 MeV/u)
impact parameter : wide
N_{event}=272018

AMD&PHITS – Kinetic Energy (Charged/Neutron)