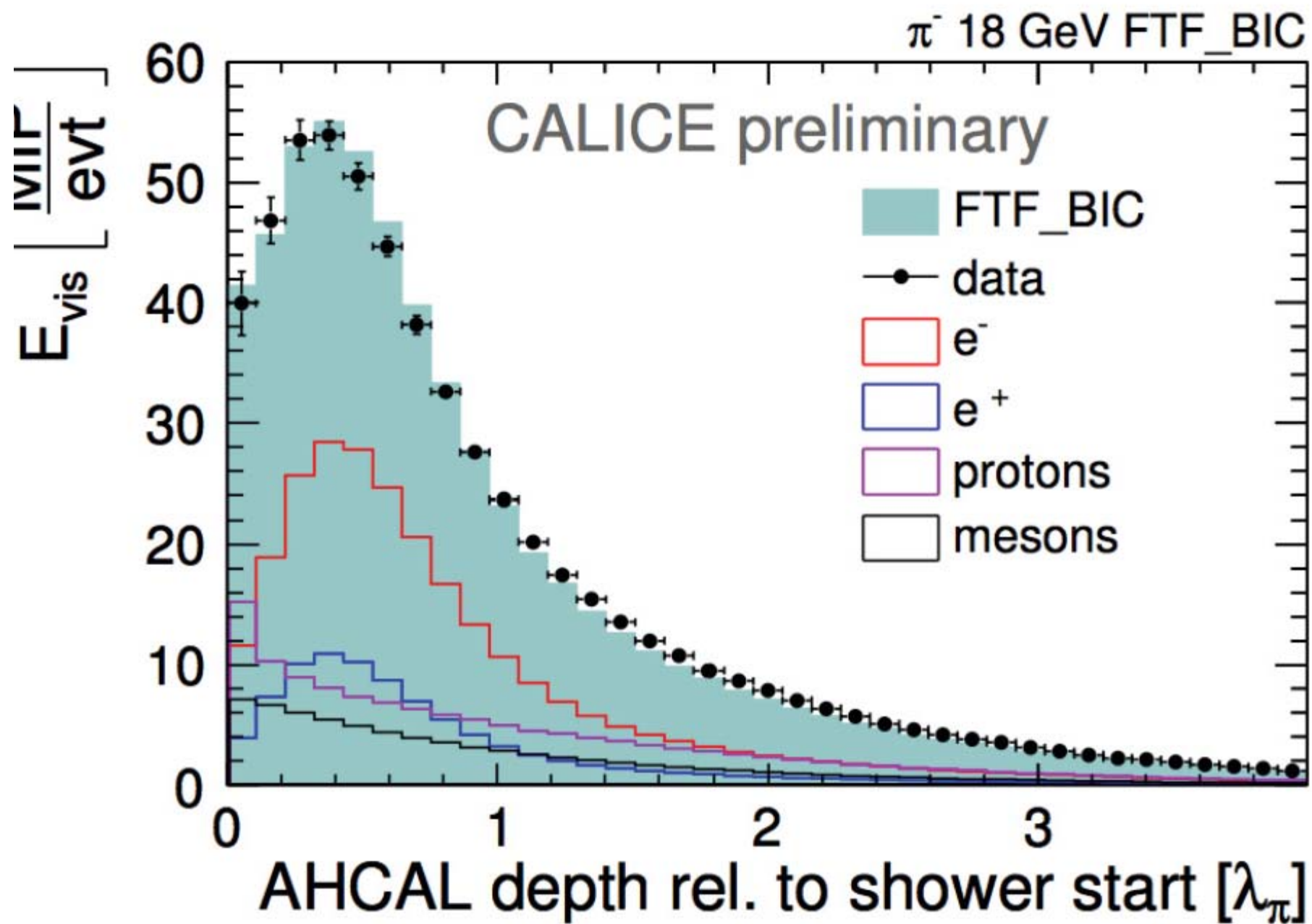
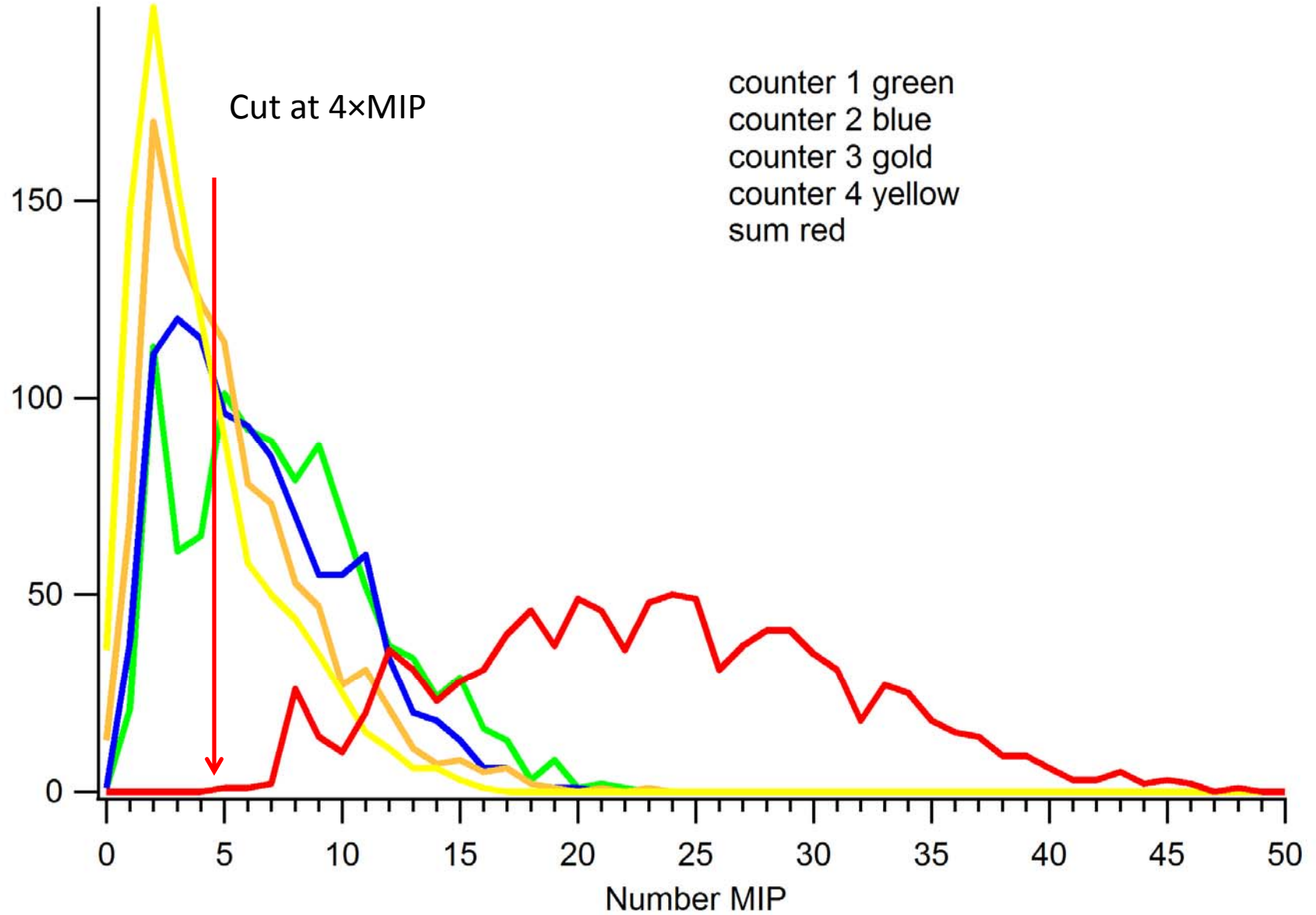


Fig. 15. Probability of a scintillator hit as a function of the calorimeter depth for different pion beam energies.



(a)

- Assume 4 particle counting detectors after FCAL, with $0.4\lambda_{\pi}$ of iron (8 cm) between each detector.
- Events = 2.5 GeV π + 2.5 GeV π , with 4% of the pions set to muons (8% of the events have at least one pion set as a muon)



- $\pi\pi$ event = counter1 + counter2 + counter3 + counter4
- Efficiency = 93%
- Efficiency with pion decay turned off = 95%

- $\pi\pi$ event = FCAL+counter1 + counter2 + counter3 + counter4
- Efficiency = 98%