

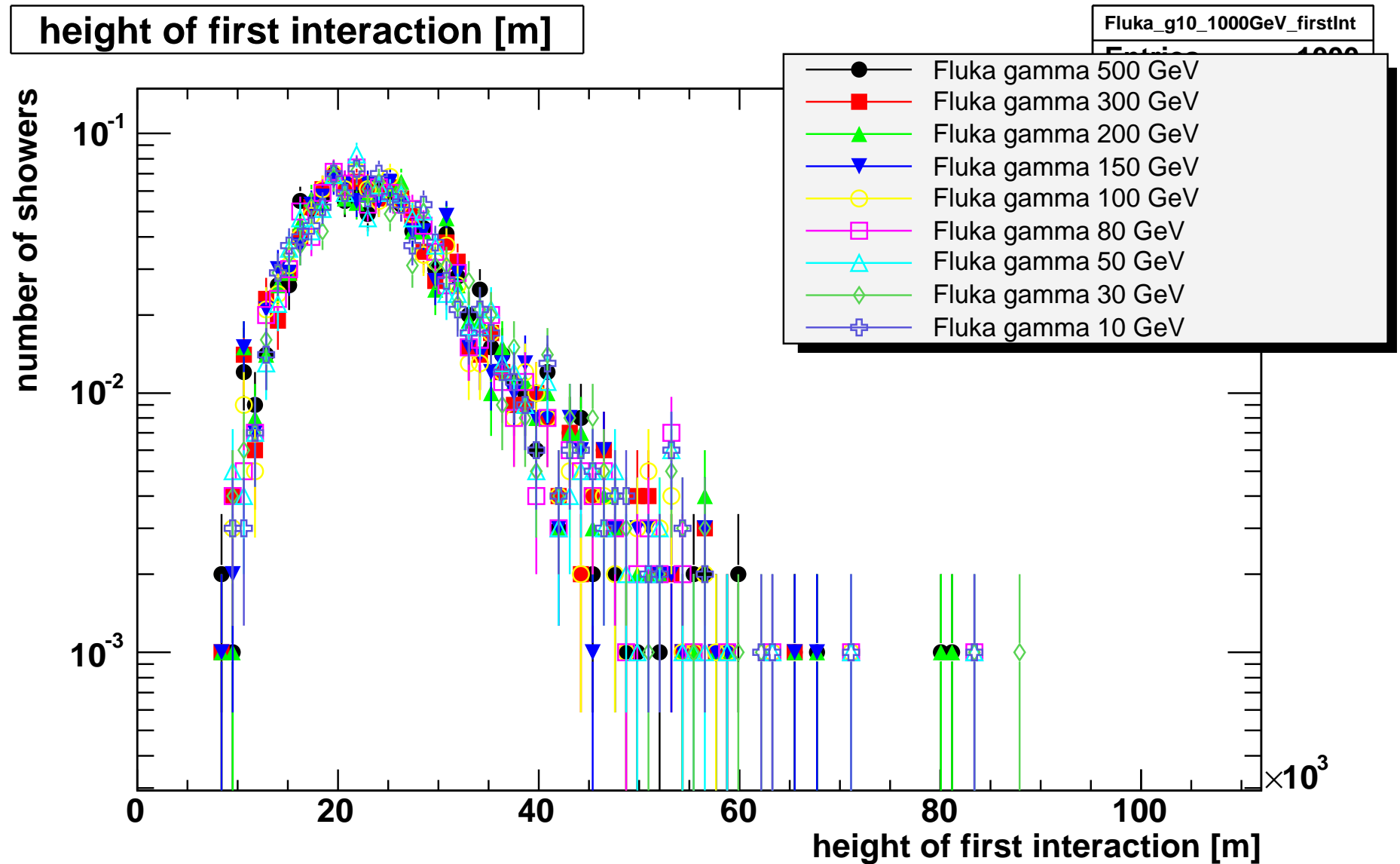
# Gamma ray shower: some distributions

**Gernot Maier**

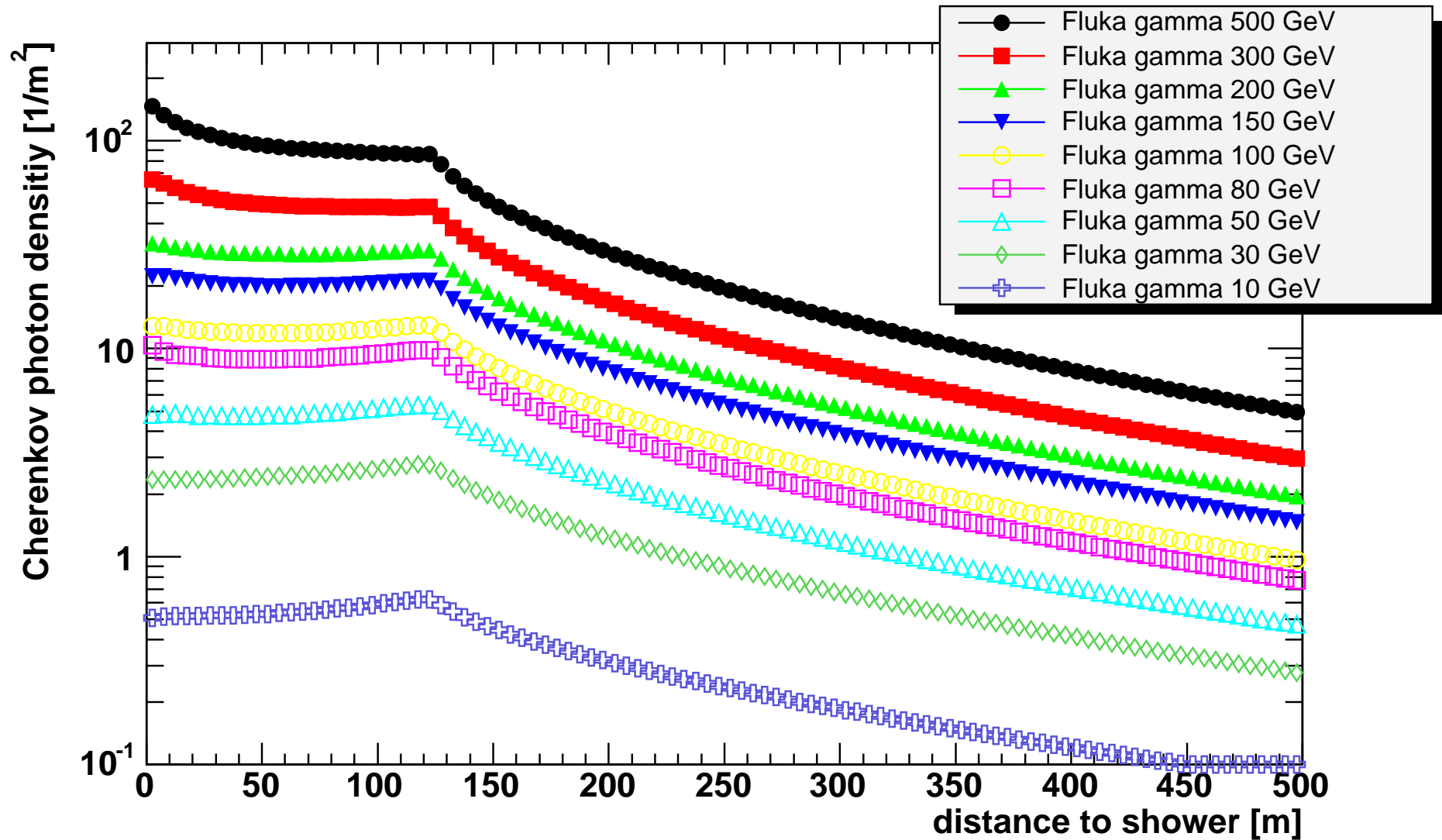
University of Leeds

- CORSIKA 6.200 with QGSJET01, FLUKA, EGS4
- observation level 1800m
- US standard atmosphere
- atmospheric attenuation
- vertical showers
- primary energies 10, 30, 50, 80, 100, 150, 200, 300, 500 GeV
- mean distributions of 1000 showers per energy

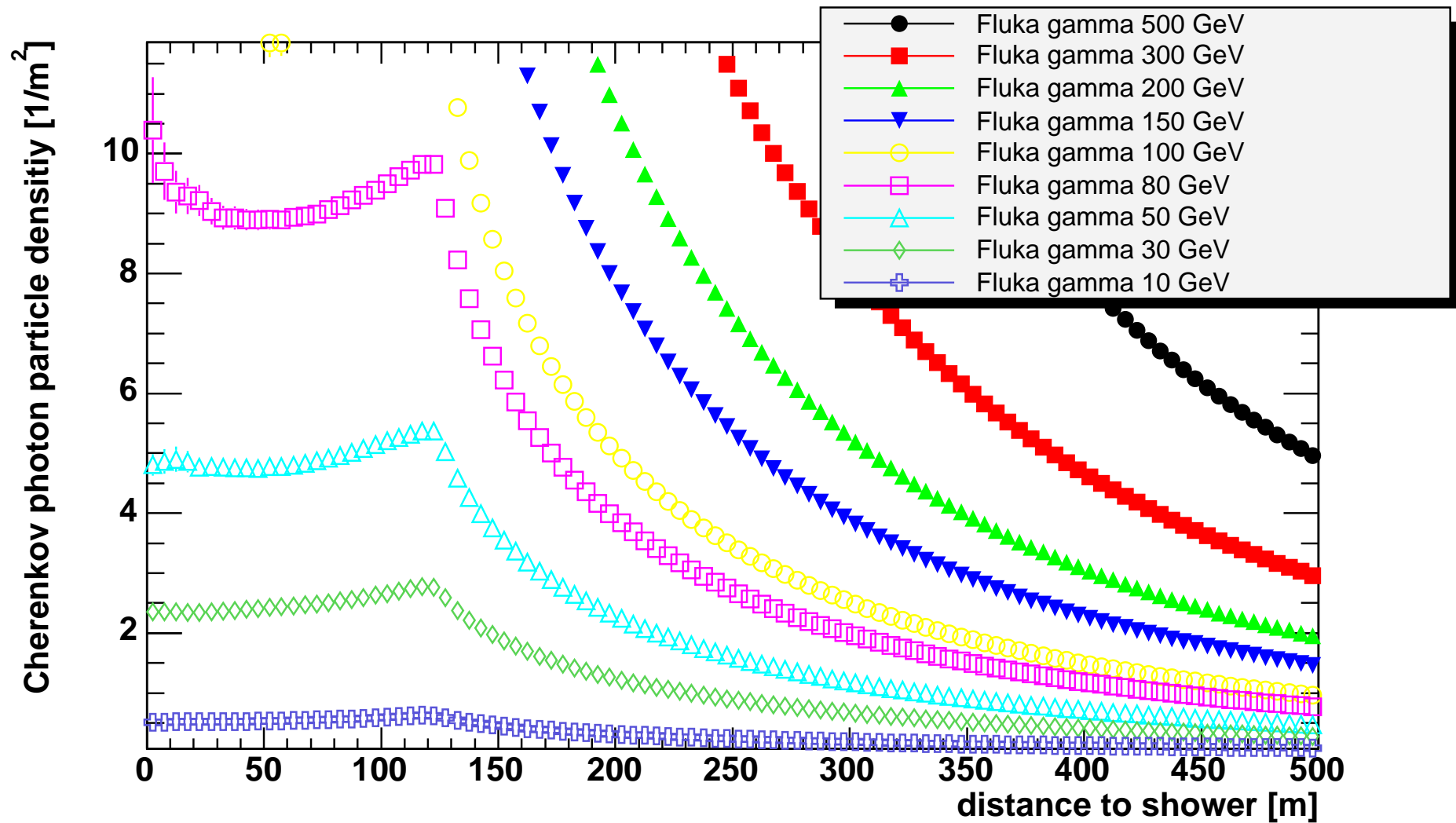
# Height of first interaction



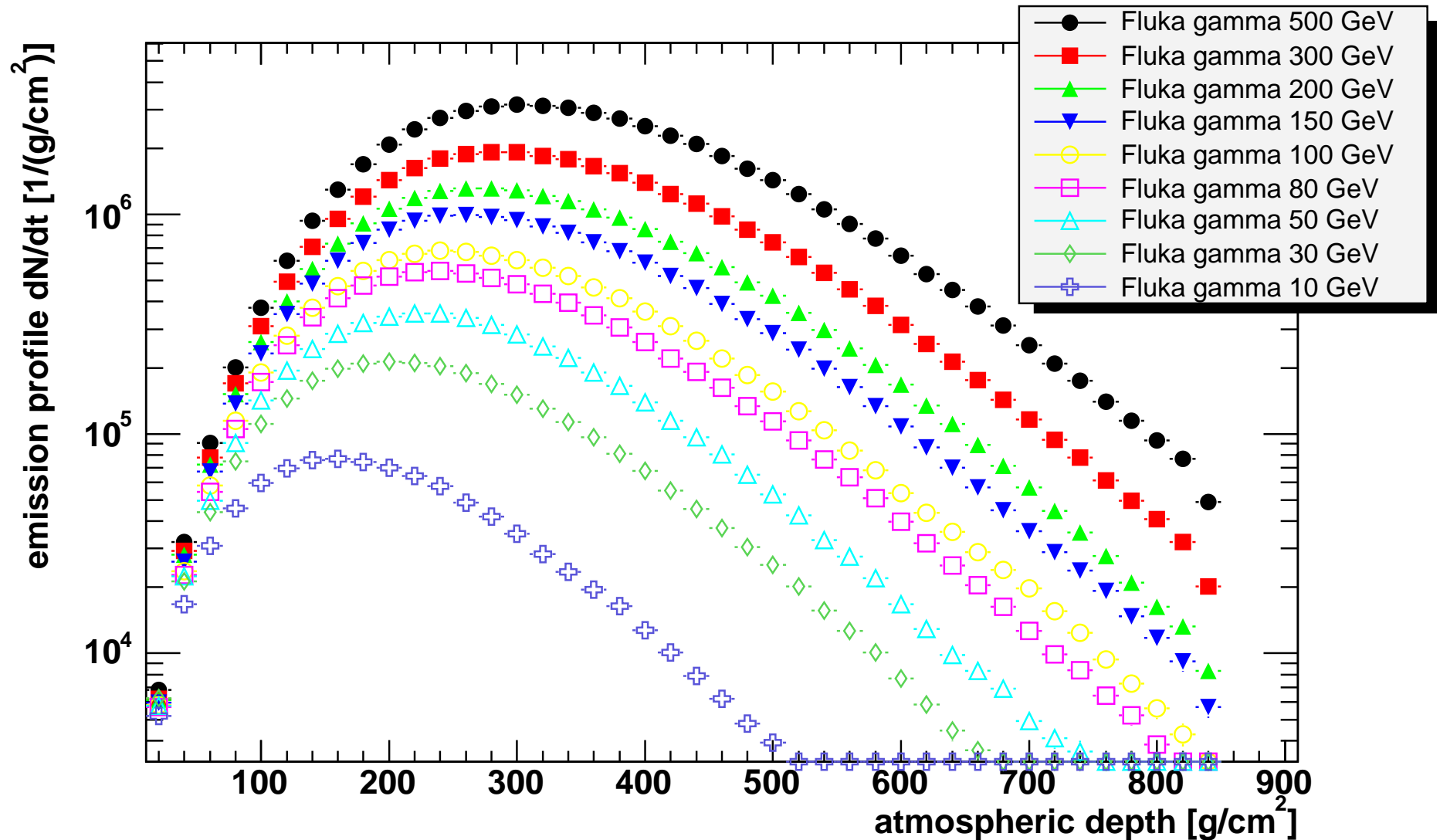
# Cherenkov Photon lateral distributions



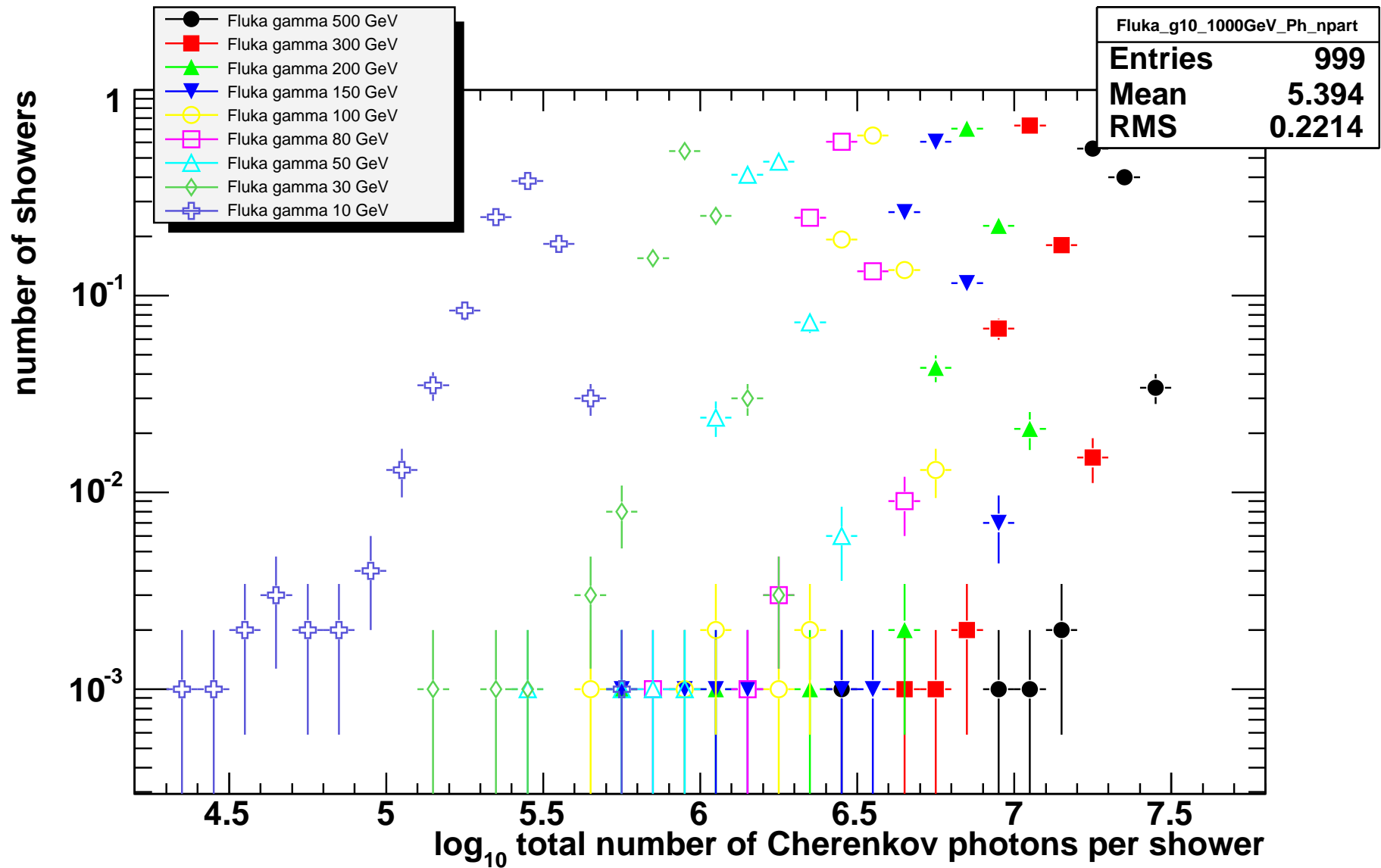
# Cherenkov Photon lateral distr. ( $<80$ GeV)



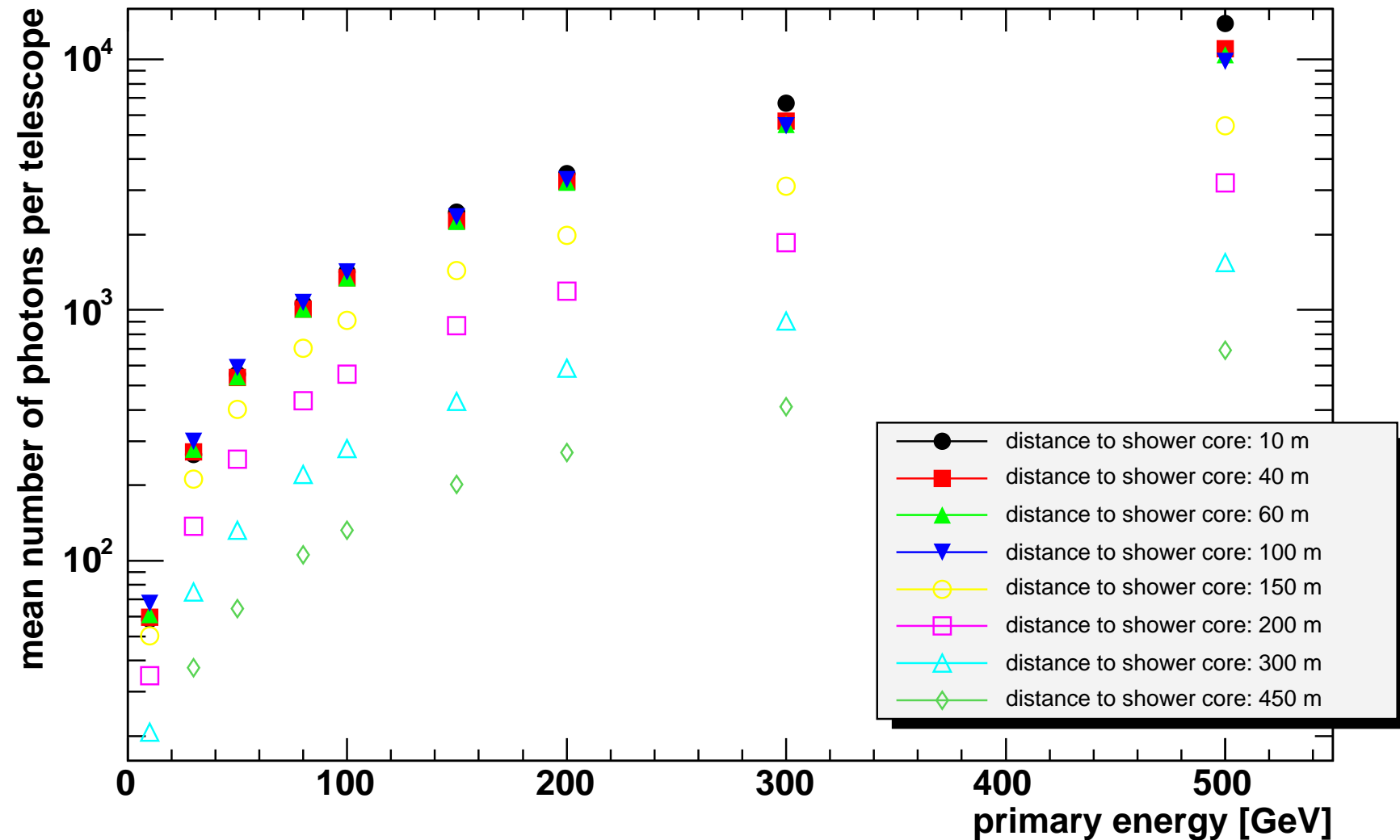
# Cherenkov Photon emission height



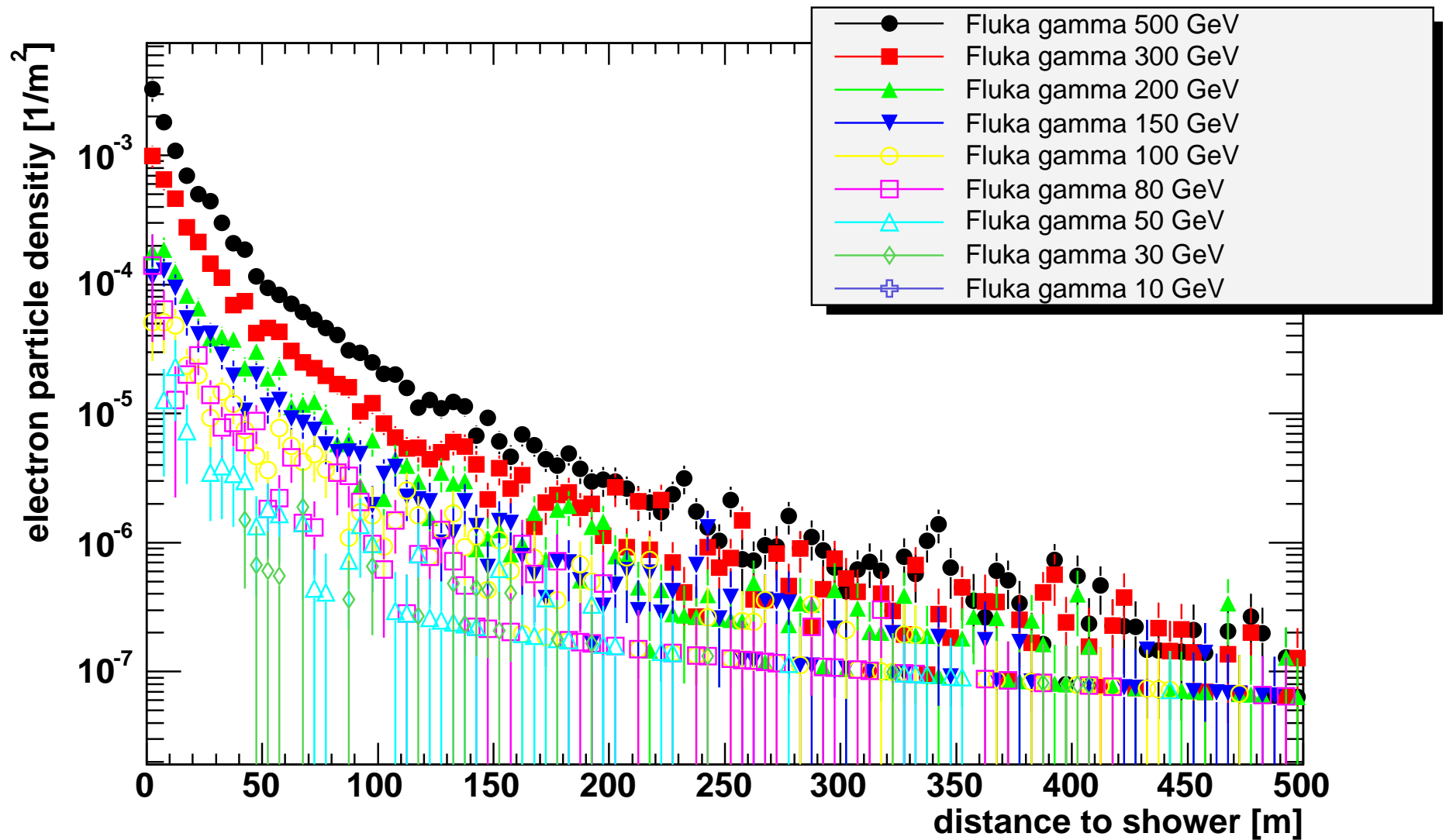
# Number of Cherenkov Photons at ground



# Number of Cherenkov photons per tel. (12m)

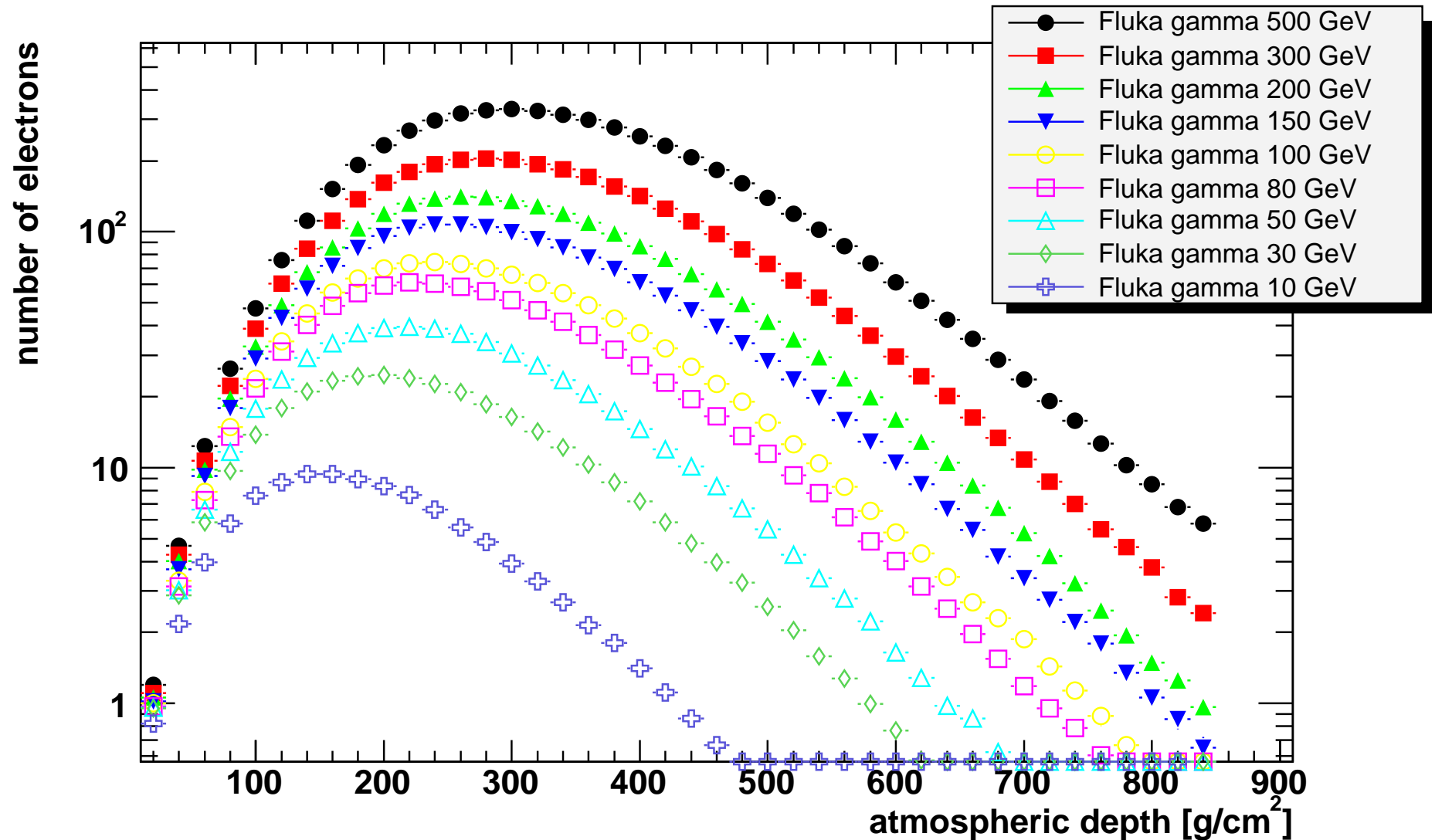


# Electron lateral distribution

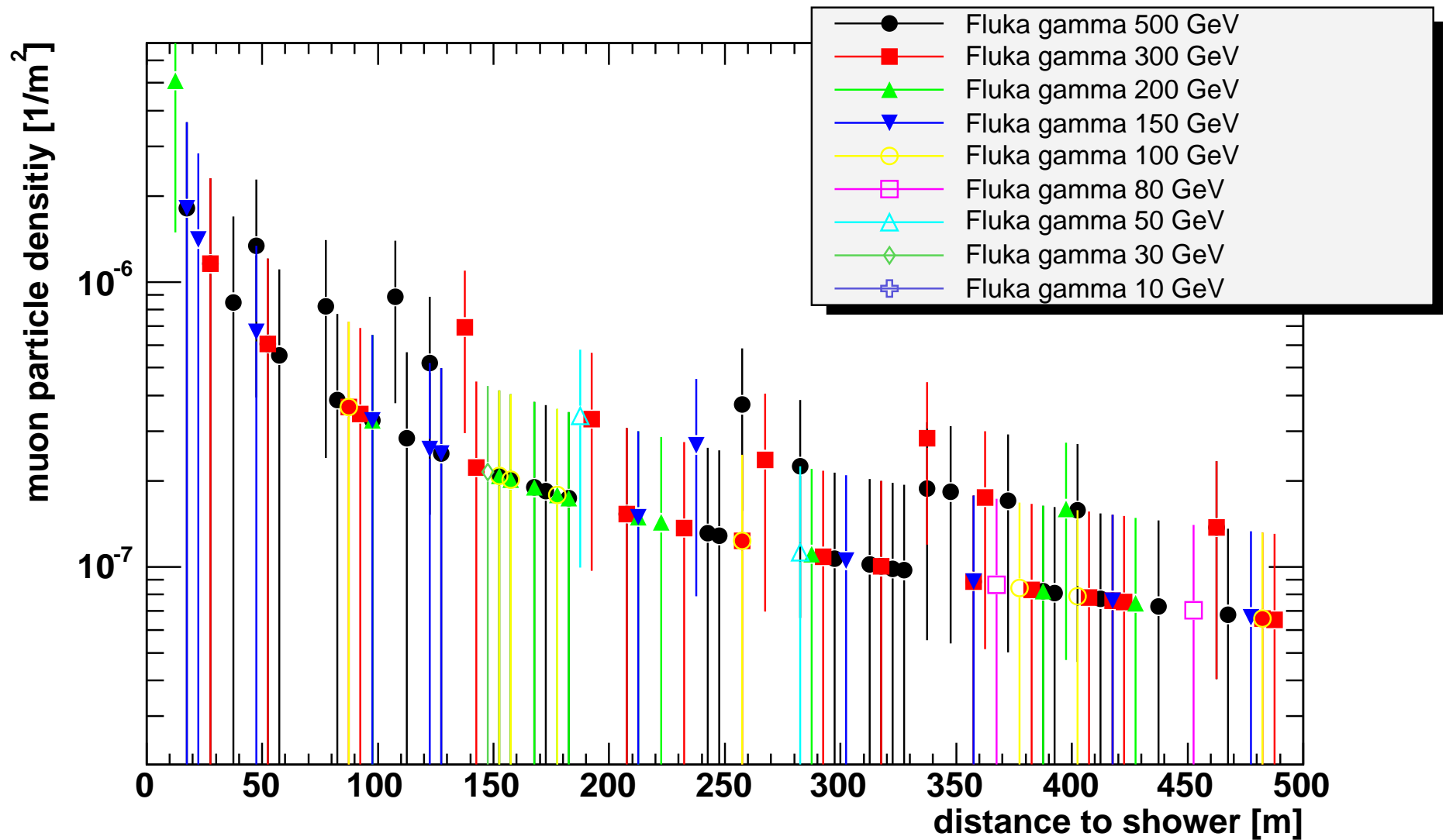




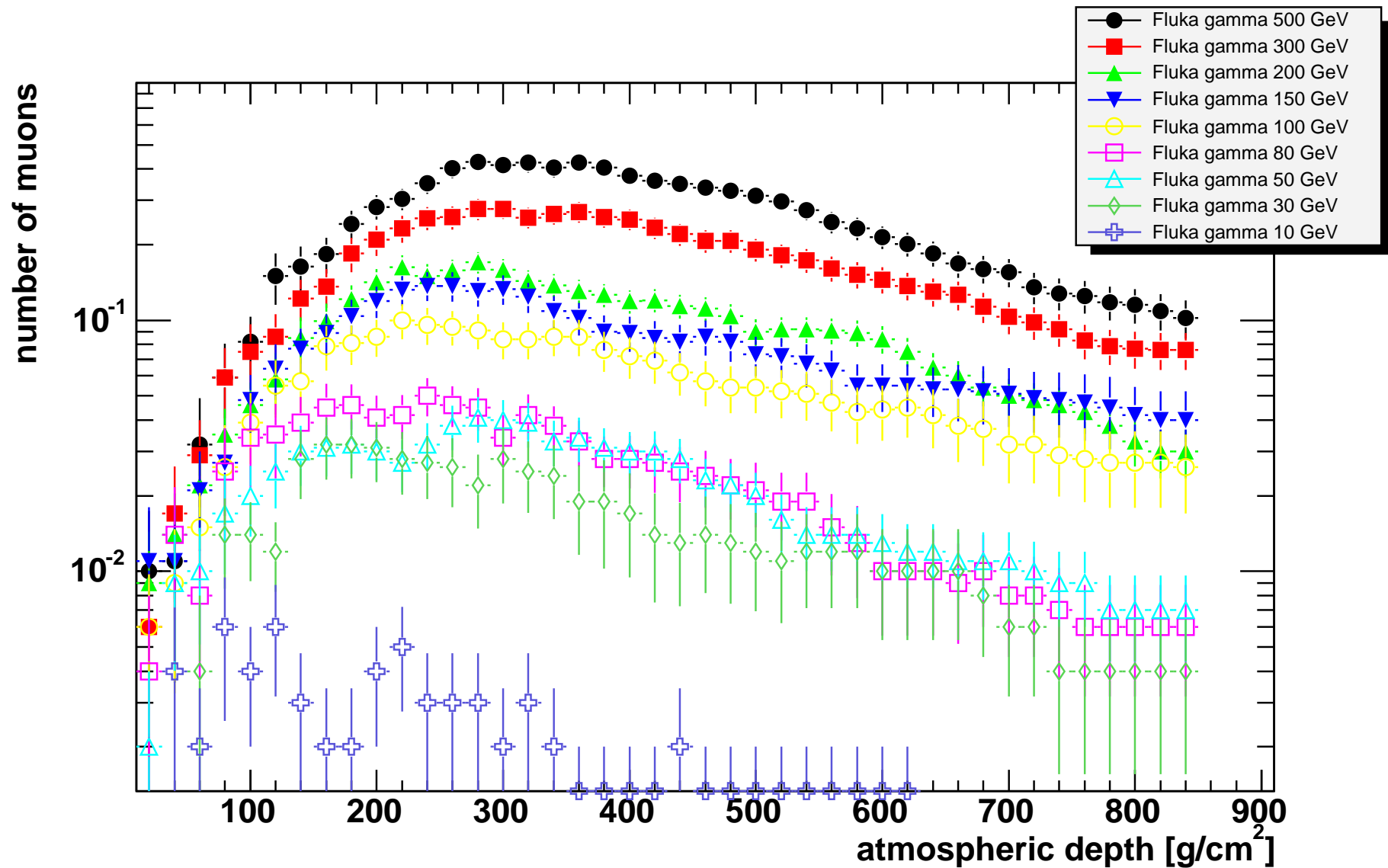
# Electron longitudinal distribution



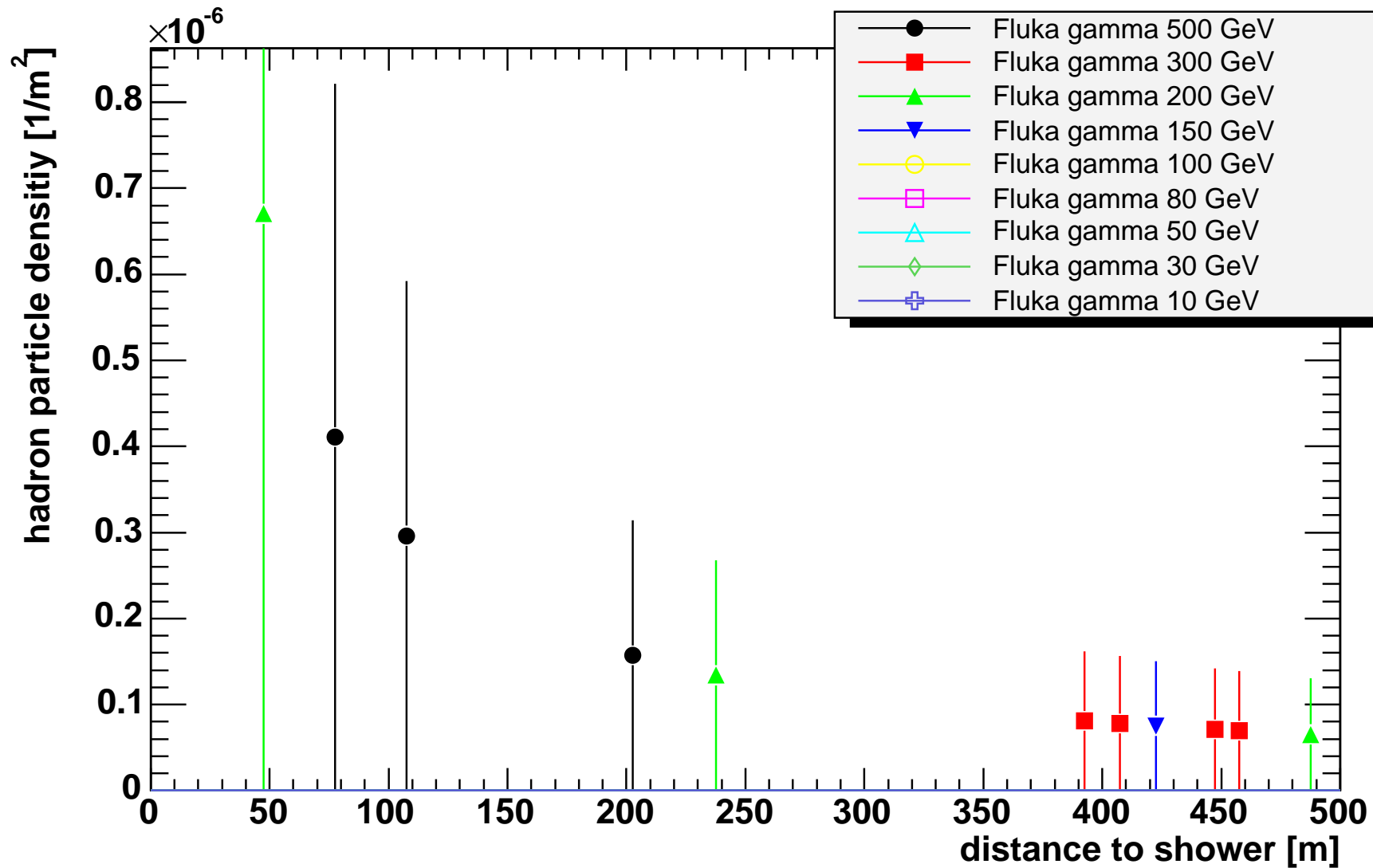
# Muon lateral distribution



# Muon longitudinal distribution



# Hadron lateral distribution



# Hadron longitudinal distribution

