



# Beam Distribution MD

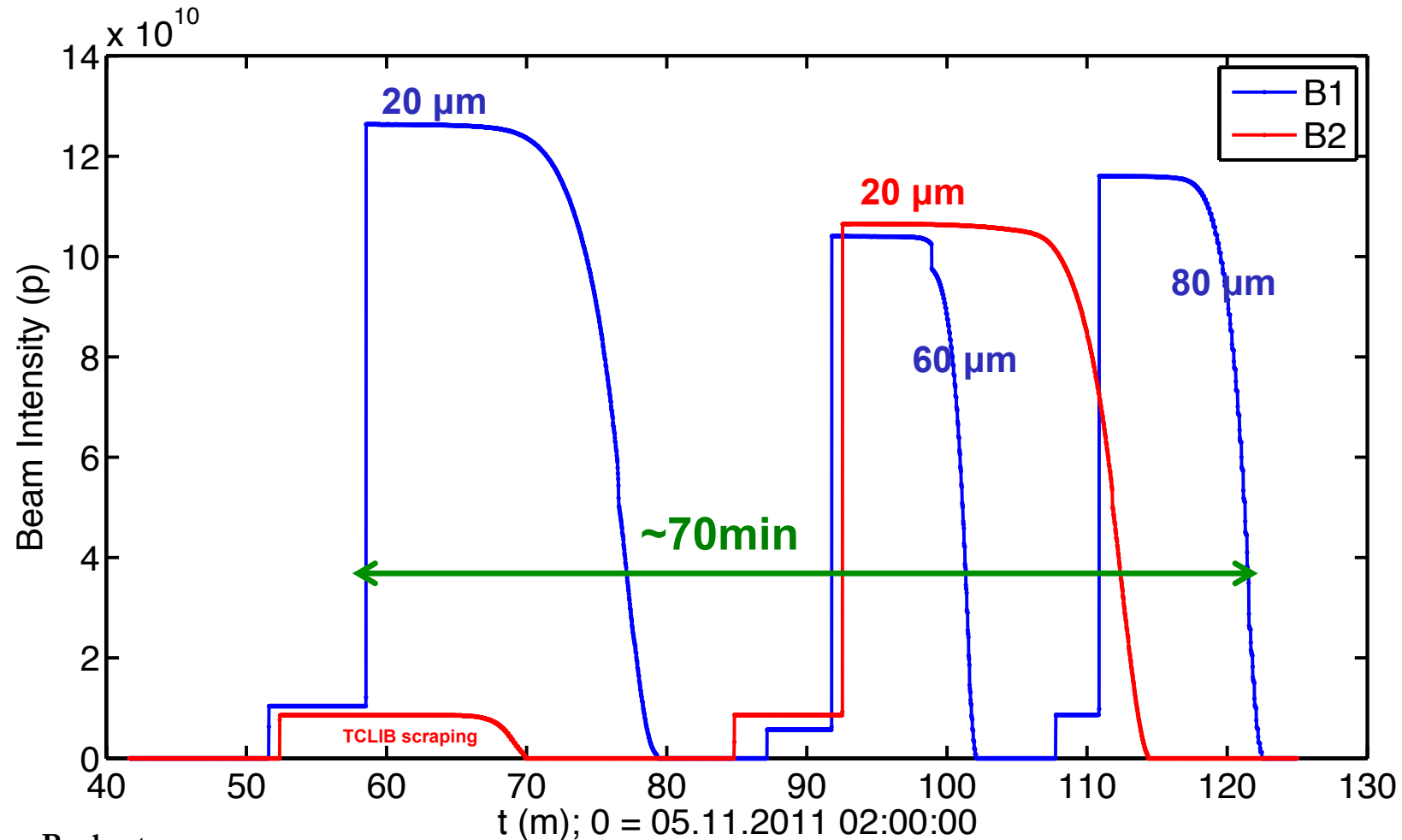
Sat, 05.11.2011 3:00 to 4:00

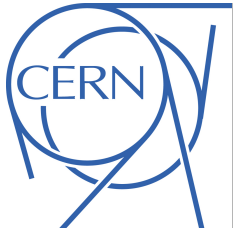
F. Burkart

R. Assmann, R. Bruce, M. Cauchi,  
D. Deboy, L. Lari, S. Redaelli, A. Rossi,  
G. Valentino, D. Wollmann

# What we did:

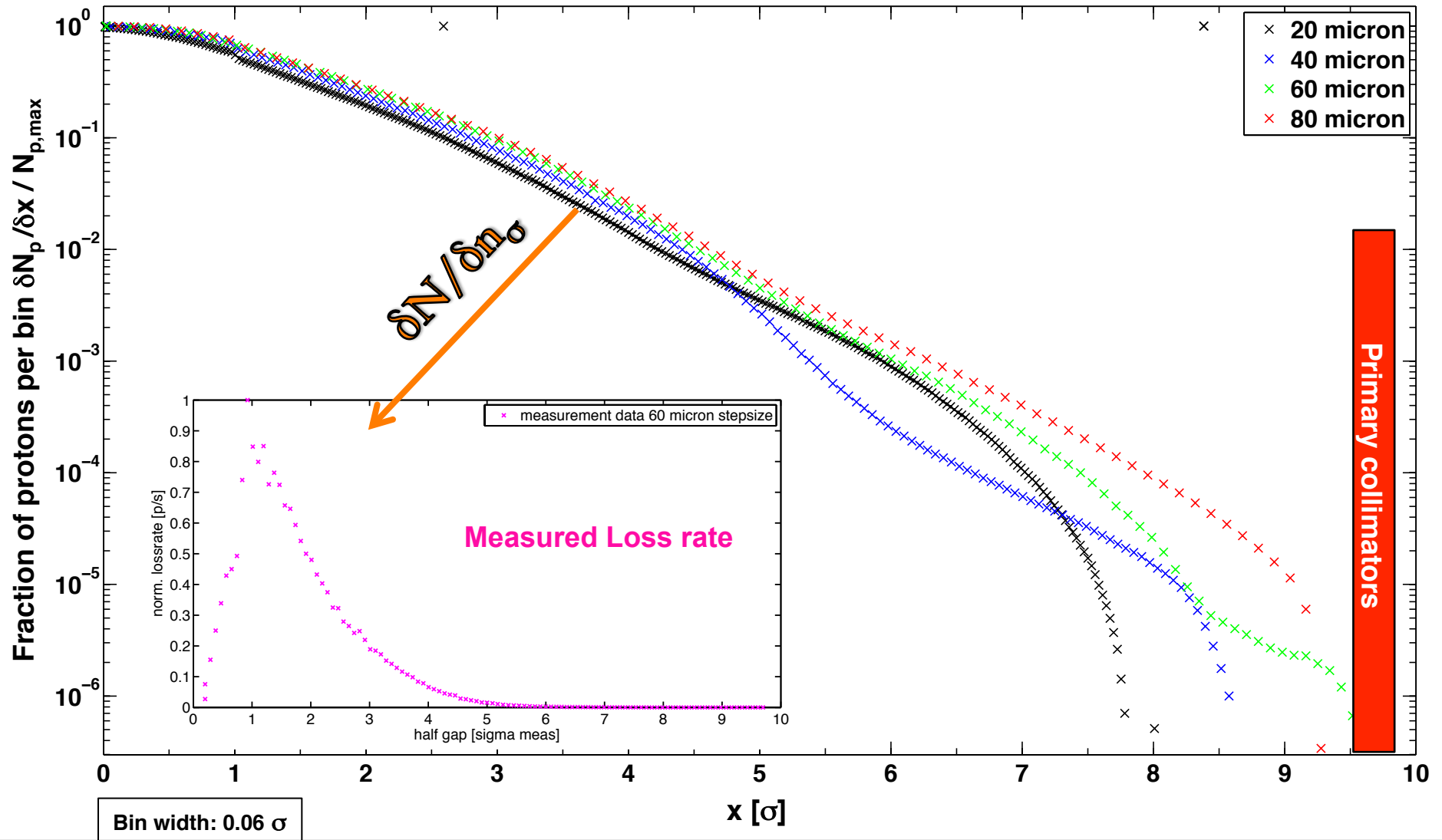
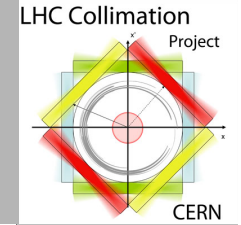
- 4 full scrapings with TCPs in IR7 (horizontal plane)
- Different step sizes





# Beam shape at 450 GeV

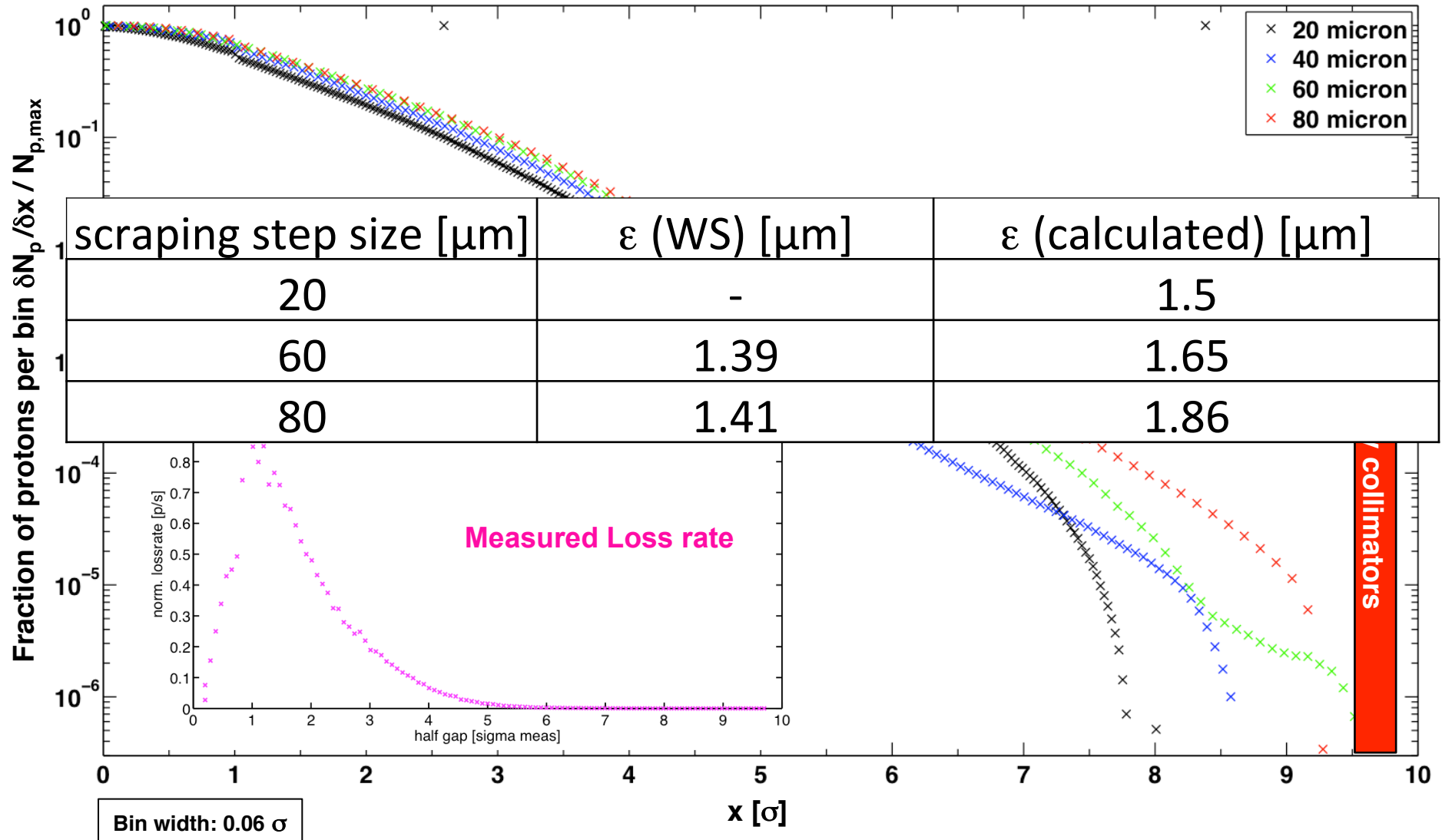
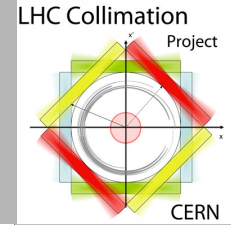
(horizontal plane, real  $\sigma$ , different step sizes)





# Beam shape at 450 GeV

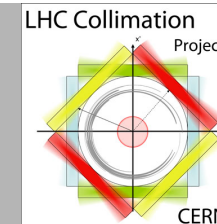
(horizontal plane, real  $\sigma$ , different step sizes)



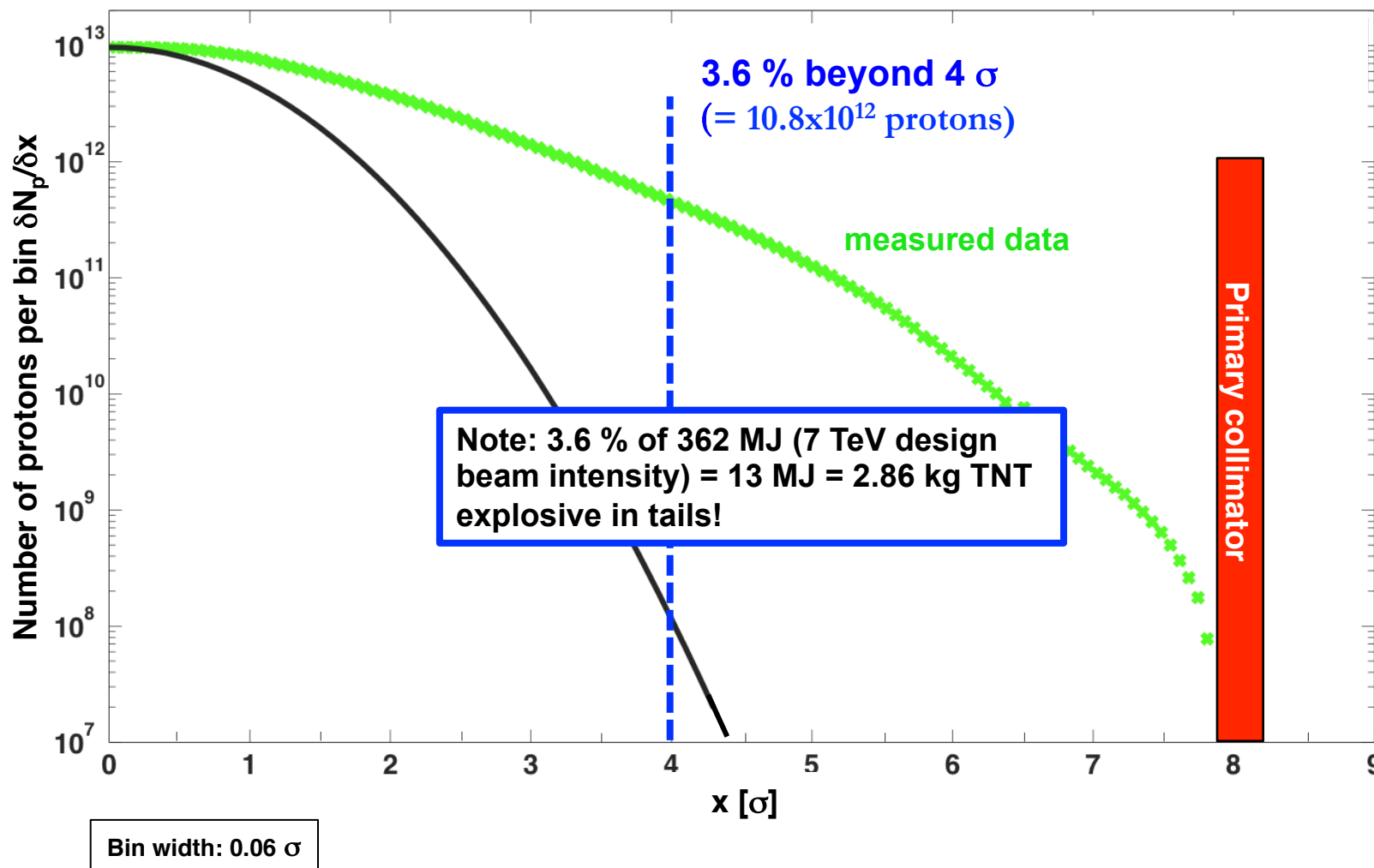


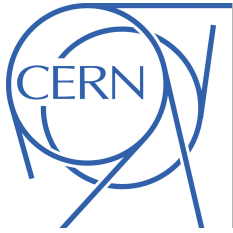
# Highly Populated Beam Tails

(skew plane, 450 GeV, total intensity  $3 \times 10^{14}$  p, real  $\sigma$ ,  $\gamma\varepsilon = 1.4$  mm)



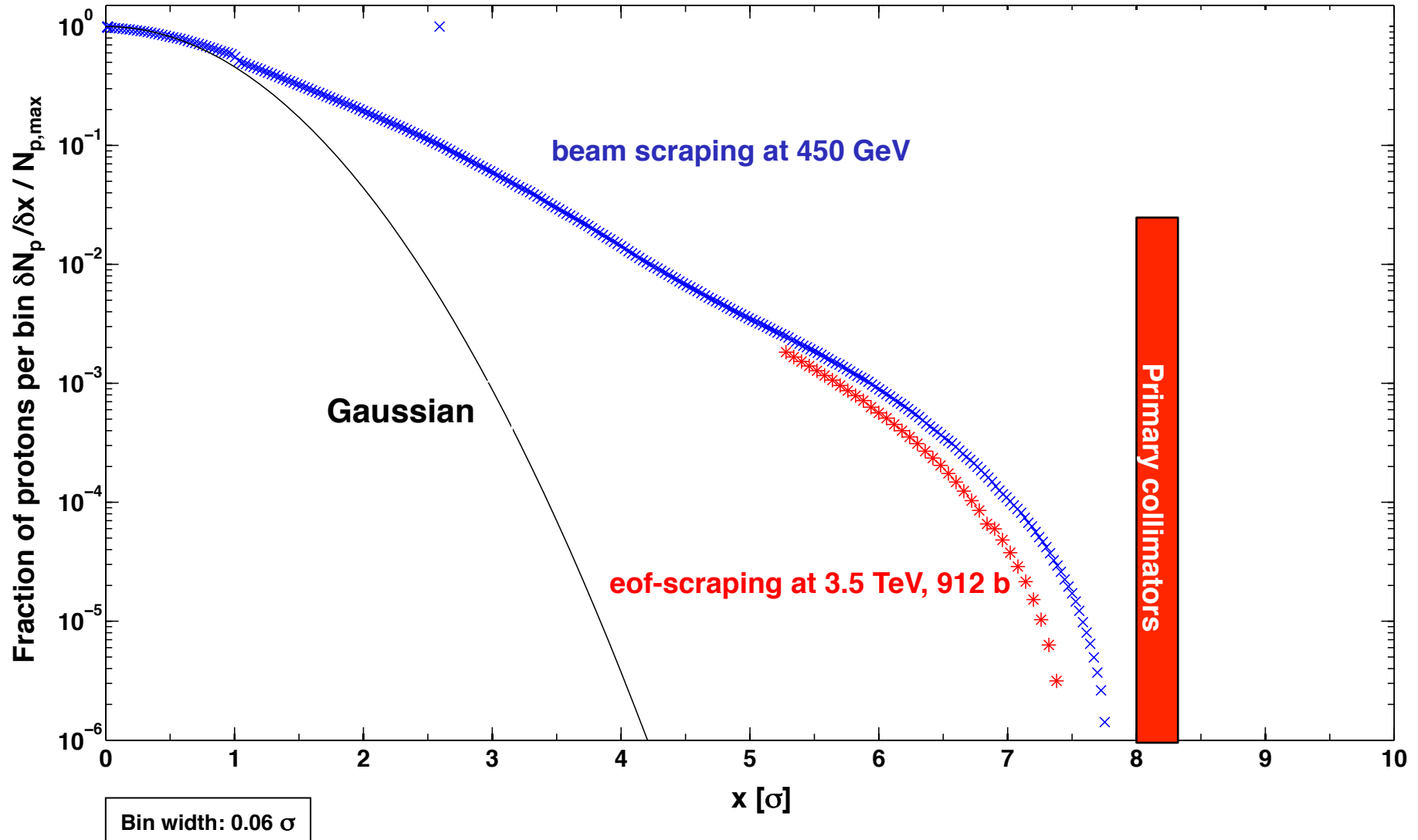
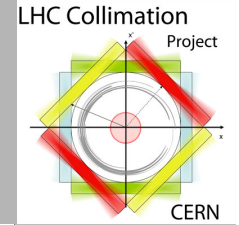
450 GeV, skew plane, bin width: 0.065 sigma, real sigma





# Beam Scrapings @ 450 GeV and 3.5 TeV

Normalized, real  $\sigma$



# Beam Scraping in all planes

