

# Energy Spectra Comparison

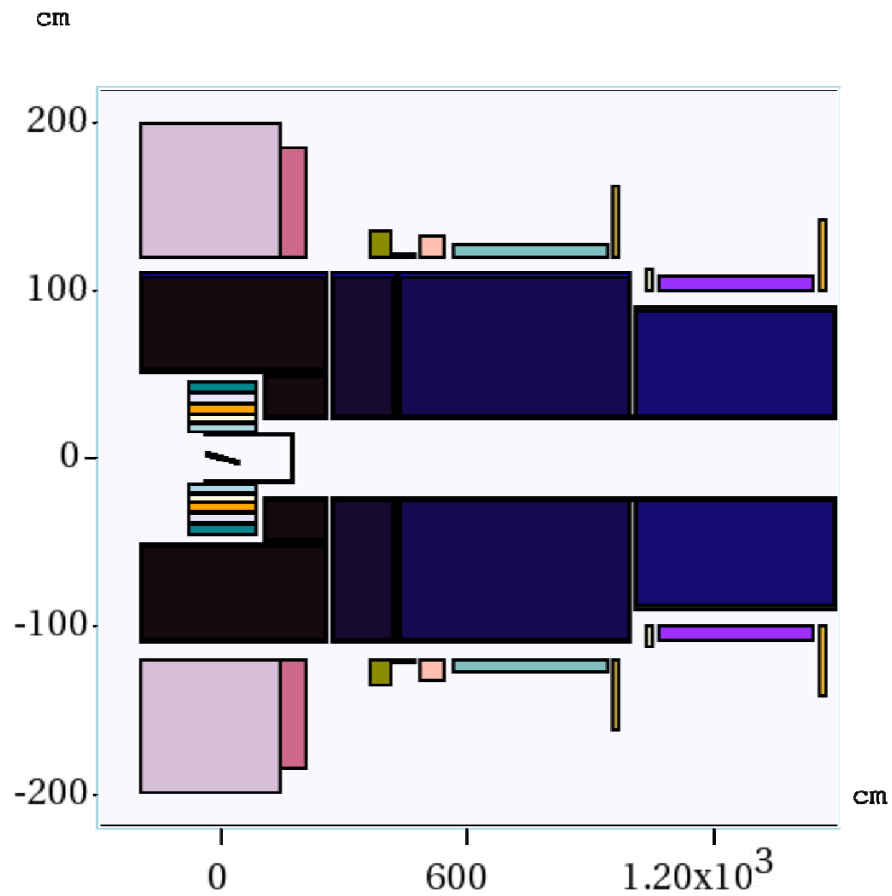
## ROOT Based and MARS Non Standard Geometry Setting

X. Ding

AAG meeting, BNL

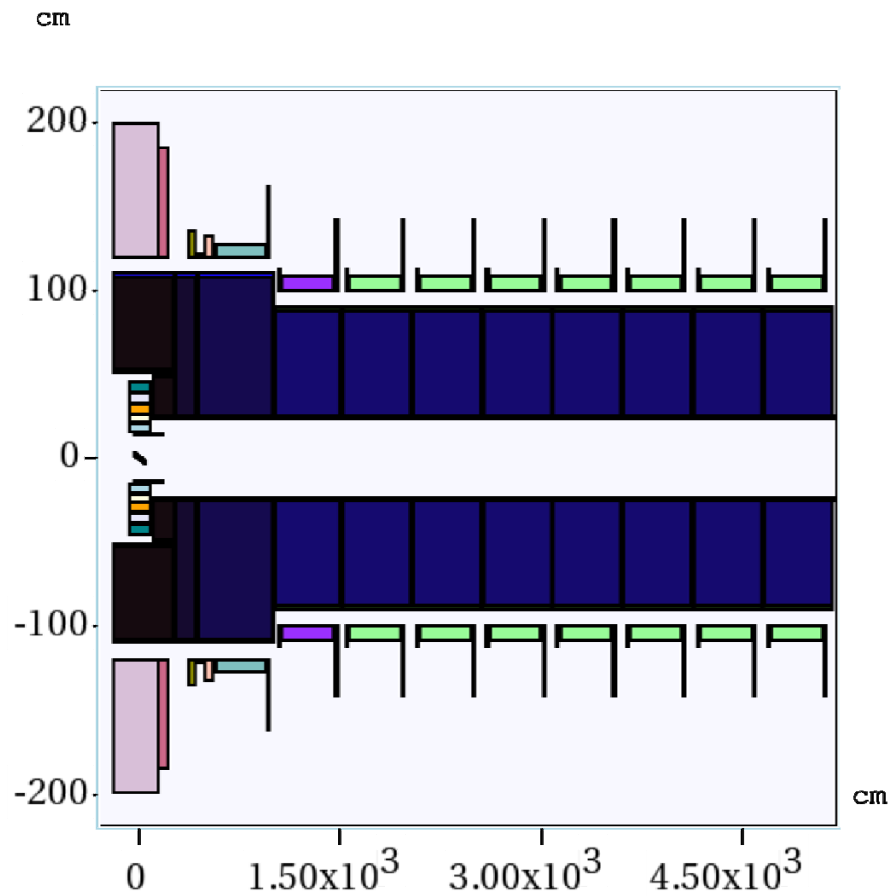
July 9, 2015

# 20to4T5m Configuration ( $z_{\max} = 15 \text{ m}$ )



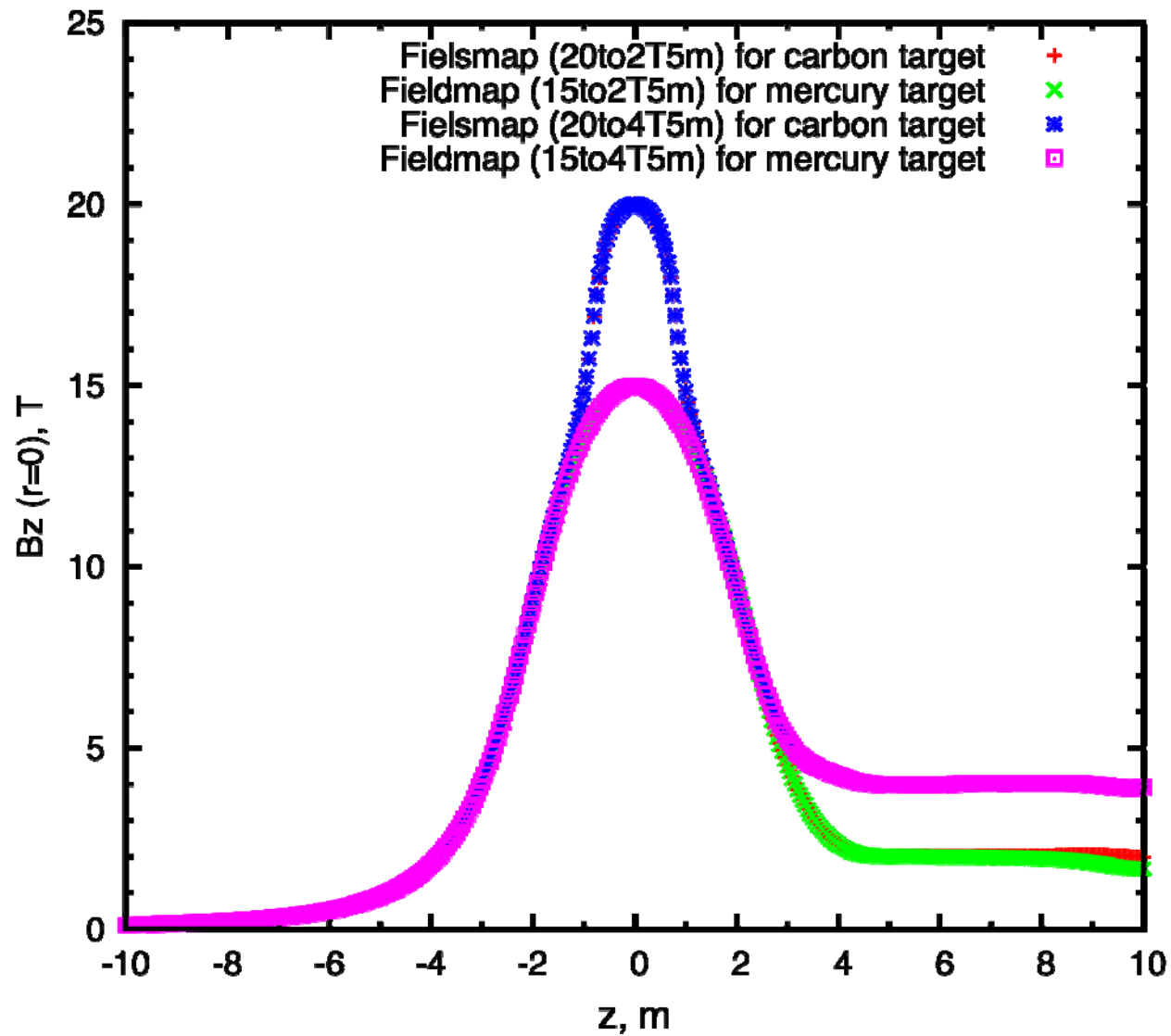
y  
↑  
z  
y:z = 1:4.091e+00

# 20to4T5m Configuration ( $z_{\max} = 52 \text{ m}$ )



y  
↑  
z  
y:z = 1:1.250e+01

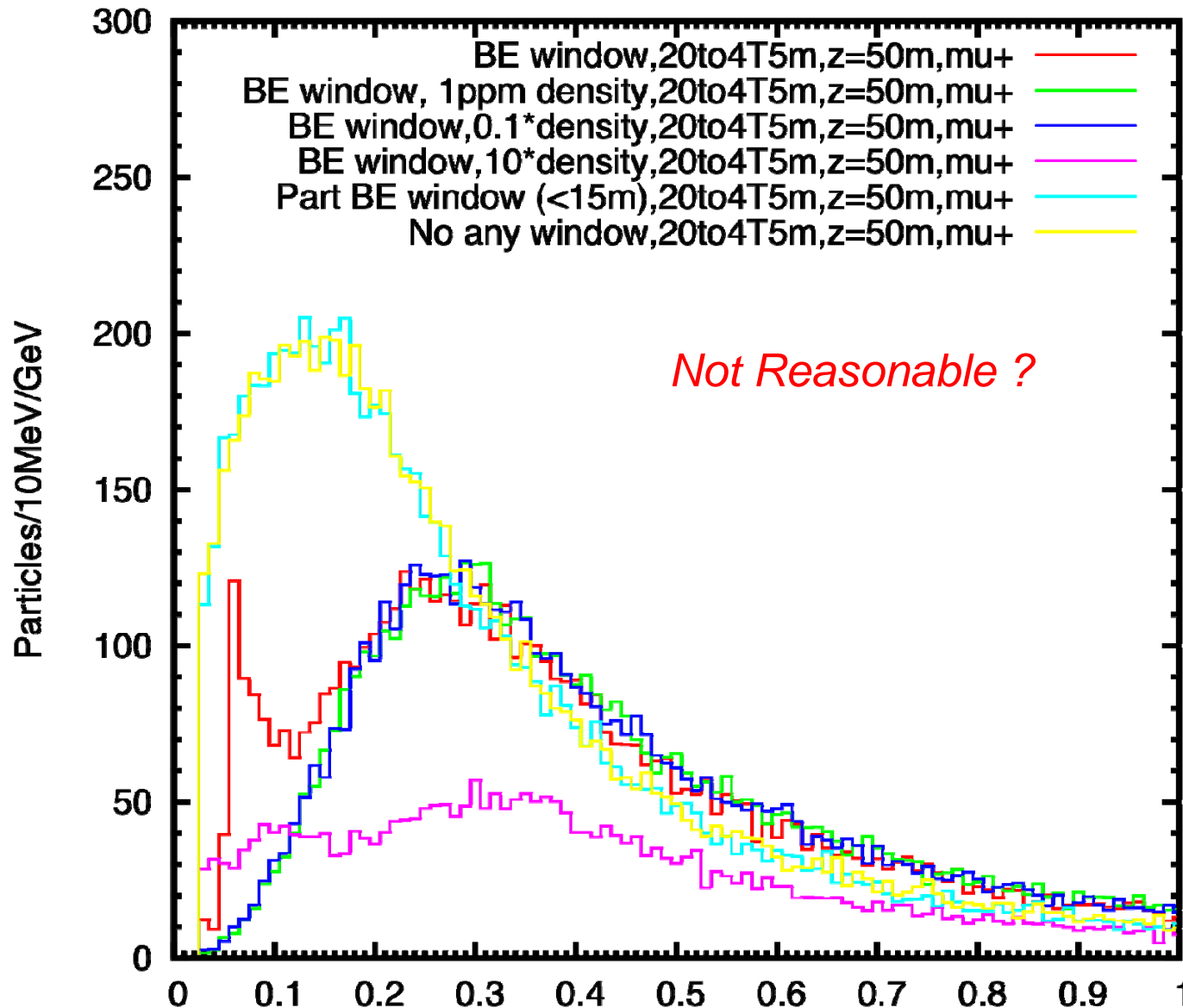
# Fieldmap on SC axis



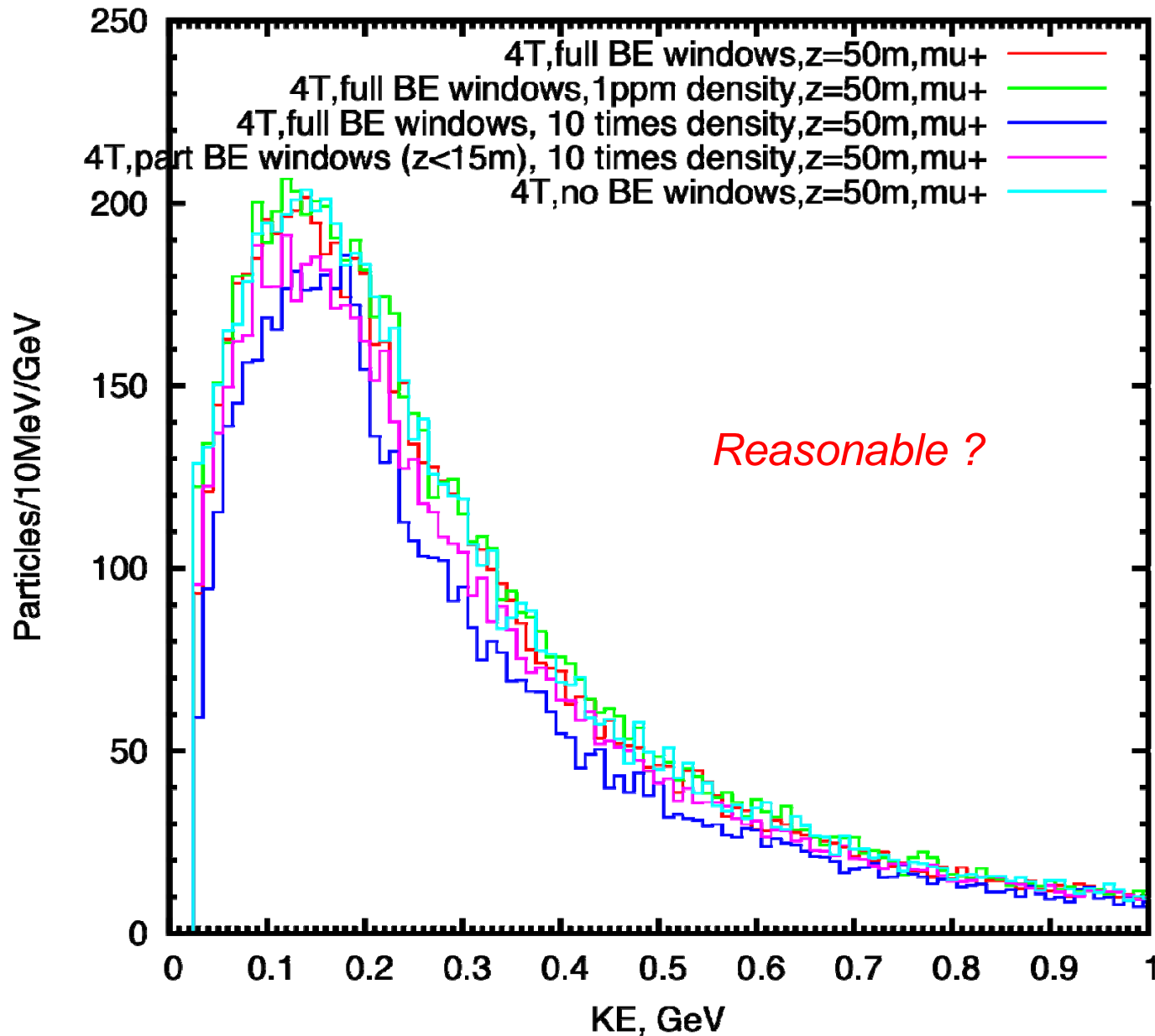
# Method

- Generate simple Gaussian beam with zero emittance (launching at  $z = -100$  cm) by MARS.INP setting and proceed through 20to2T5m and 20to4T5m configuration and transport channel;
- Collect beam at  $z = 50$  m and extract the positive muon

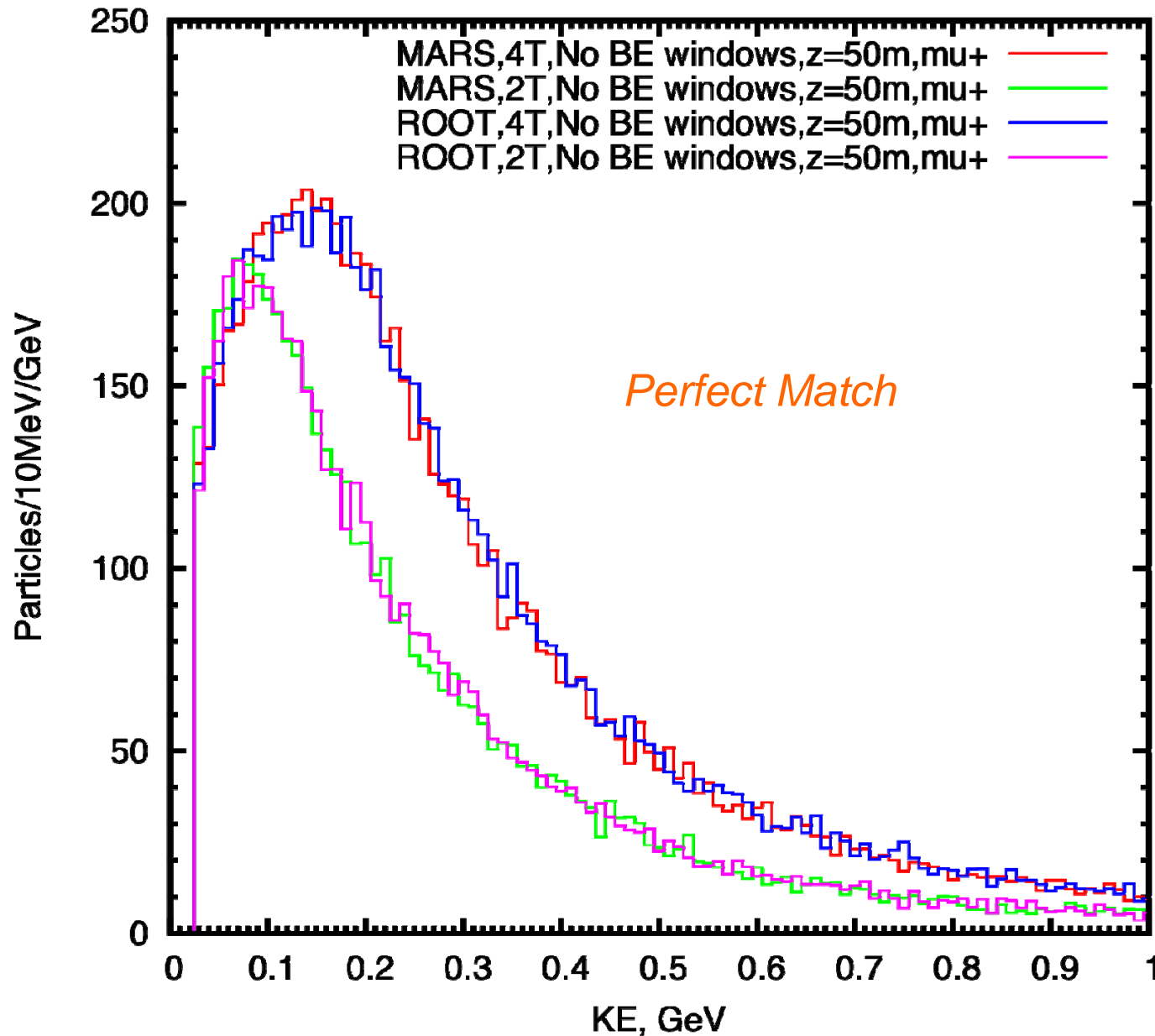
# ROOT Setting with Be Windows ( $\mu^+$ )



# MARS Setting with Be Windows ( $\mu^+$ )



# Setting without BE windows ( $\mu^+$ )





# Setting with BE windows ( $\mu^+$ )

