

# Reducing Photon Yield

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*7 Dec 2020*

# Photon Yield

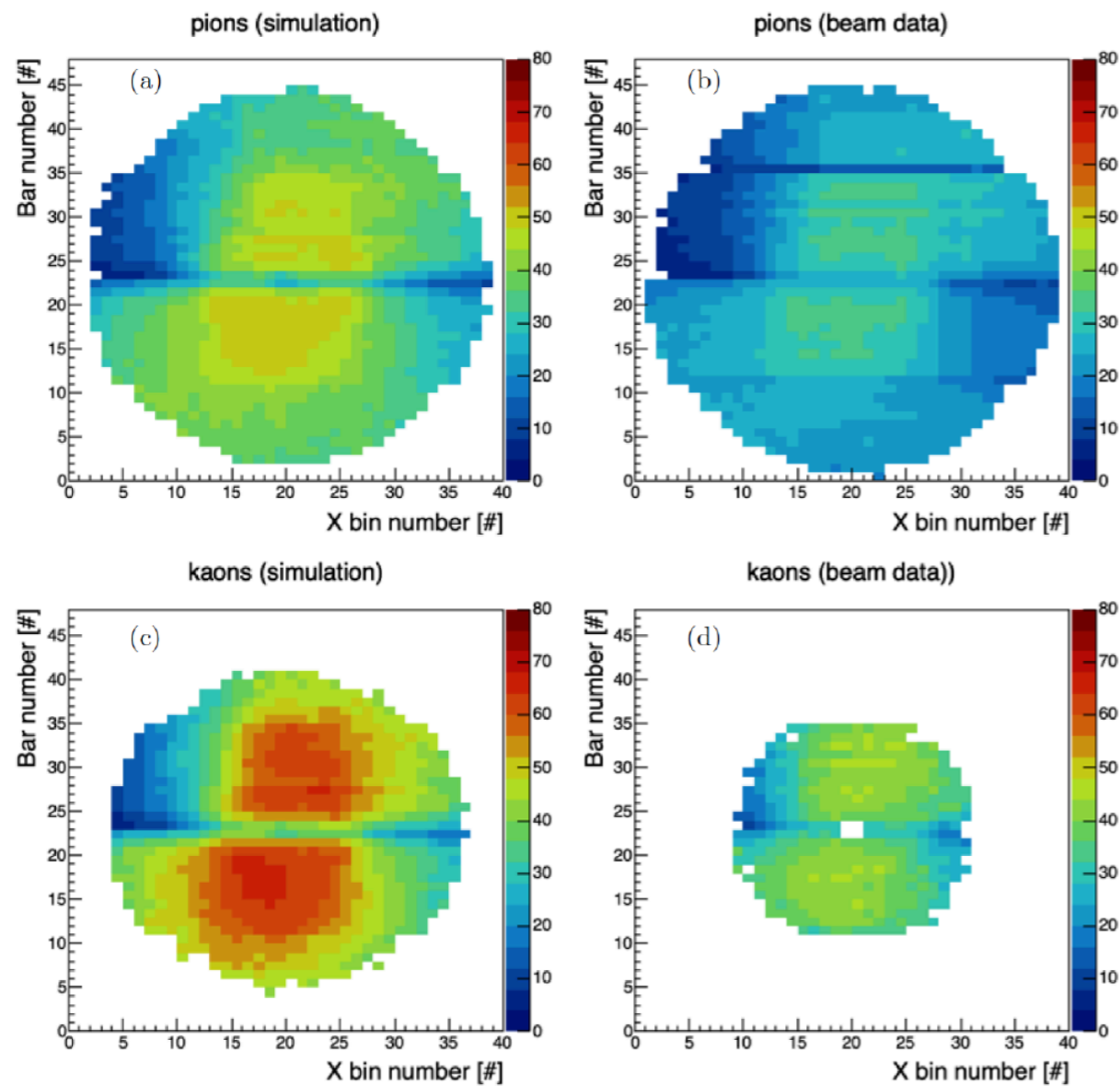


Figure 2.14: Photon yield maps for pions and kaons identified through the  $\rho$  and  $\phi$  reactions at (3-3.5) GeV/ $c$  momentum. (a) pion tracks simulation, (b) pion tracks beam data, (c) Kaon tracks simulation, (b) kaon tracks beam data.

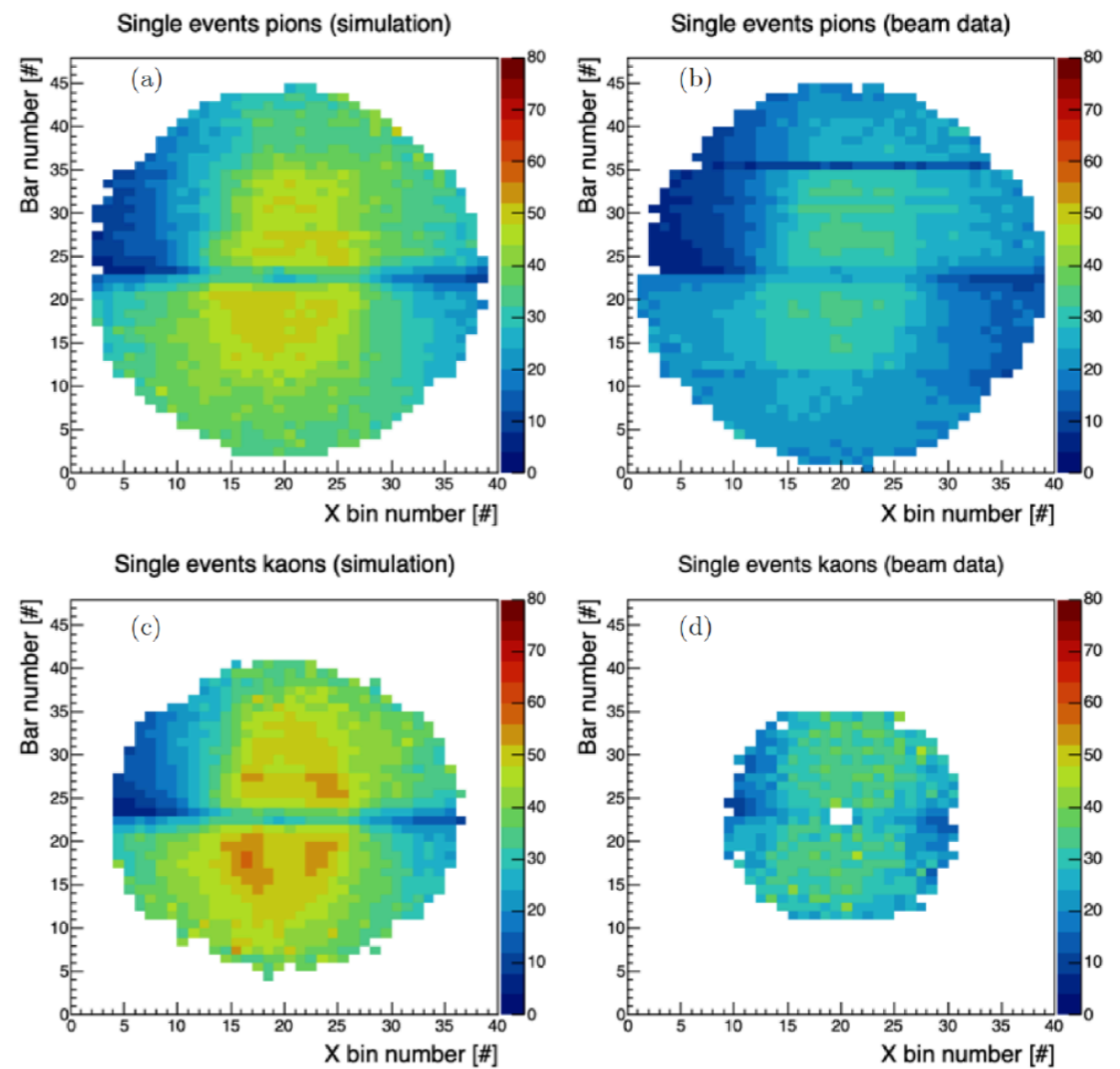
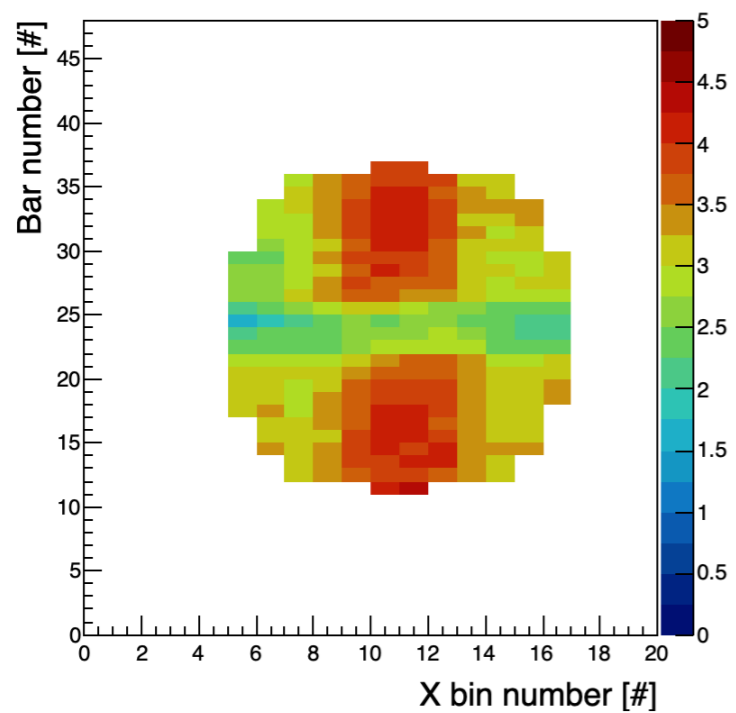


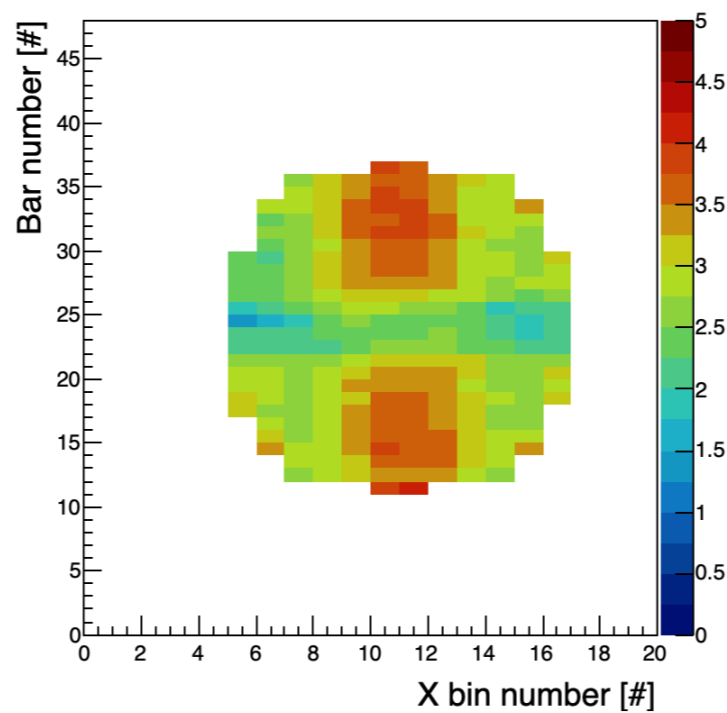
Figure 2.15: Photon yield maps for pions and kaons identified through the  $\rho$  and  $\phi$  reactions at (3-3.5) GeV/ $c$  momentum using events that have single track at the DIRC wall. (a) pion tracks simulation, (b) pion tracks beam data, (c) Kaon tracks simulation and (d) kaon tracks beam data.

# Kaon/Pion Separation

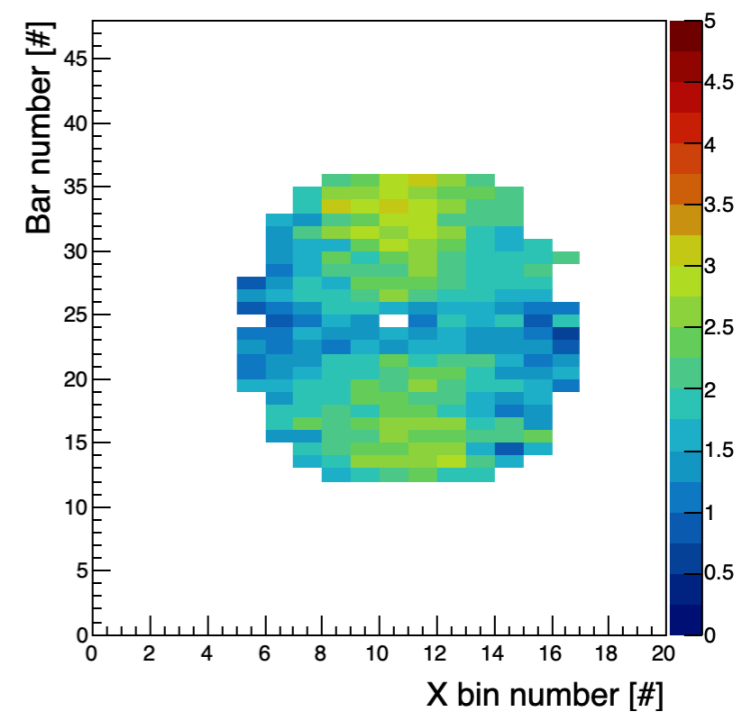
$\pi/k$  separation at [3-3.5] GeV/c Geant4



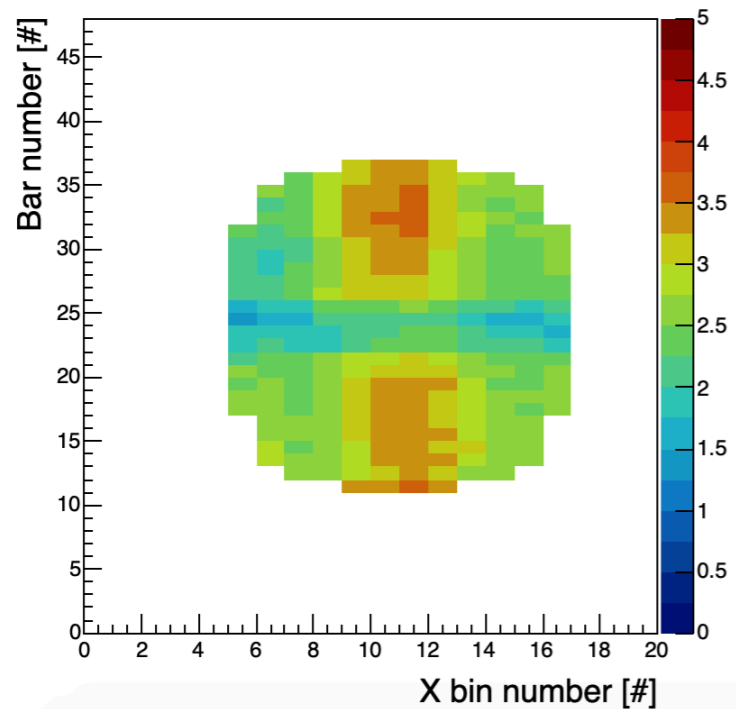
$\pi/k$  separation at [3-3.5] GeV/c Geant4 (yield cut)



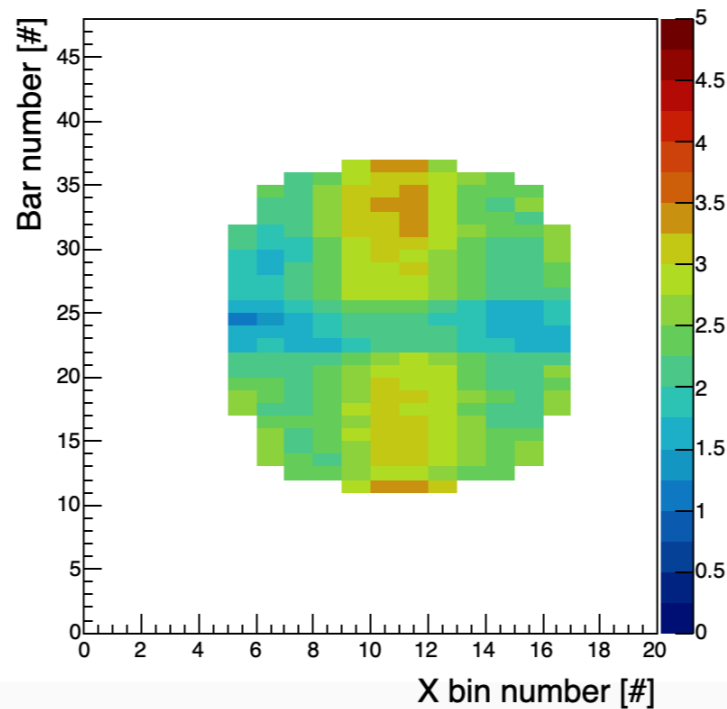
$\pi/k$  separation at [3-3.5] GeV/c beam data



$\pi/k$  separation at [3.5-4] GeV/c Geant4



$\pi/k$  separation at [3.5-4] GeV/c Geant4 (yield cut)



$\pi/k$  separation at [3.5-4] GeV/c beam data

