

Simulations employ simple acceptance cuts and PISA/PISORP modeling

Simple acceptance: single muons in PHENIX South arm, $12^\circ < \theta < 35^\circ$

prompt μ 's from heavy flavors and J/ψ use cuts in PAW

π and K mesons generated by Monte Carlo over a z-vertex distribution of $\sigma = 22$ cm

uniform decay distribution occurs along path from a given vertex (includes variation in solid angle) up to and 15 cm into nose cone to represent hadron absorption length — after this all hadrons assumed to be absorbed

PISA/PISORP (not as good statistically)

Tracking + μ ID requirements

- 1) Hits in 3 tracking stations with momenta consistent with μ ID depth penetration
- 2) Tracks point to interaction vertex region
- 3) Particles penetrate to μ ID plane 3
- 4) Particles satisfy μ ID trigger "road" condition

charm decays obtained by entering 4-momenta from decay μ 's from PYTHIA into PISA

π and K decays use Buggild parameterization

hadron 4-momenta is initial PISA(GEANT) transport in μ arm
most hadrons are absorbed before decaying