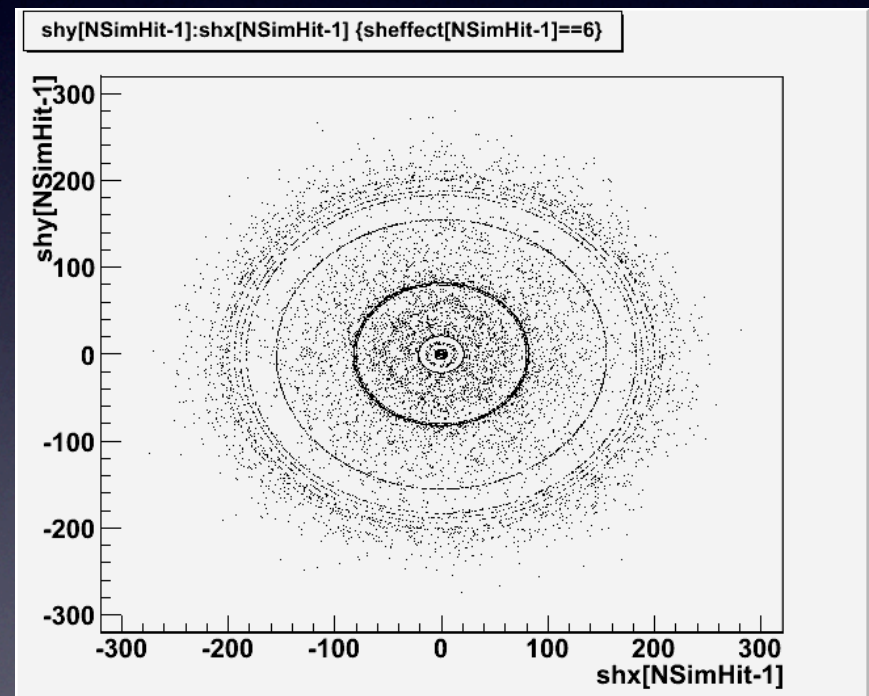


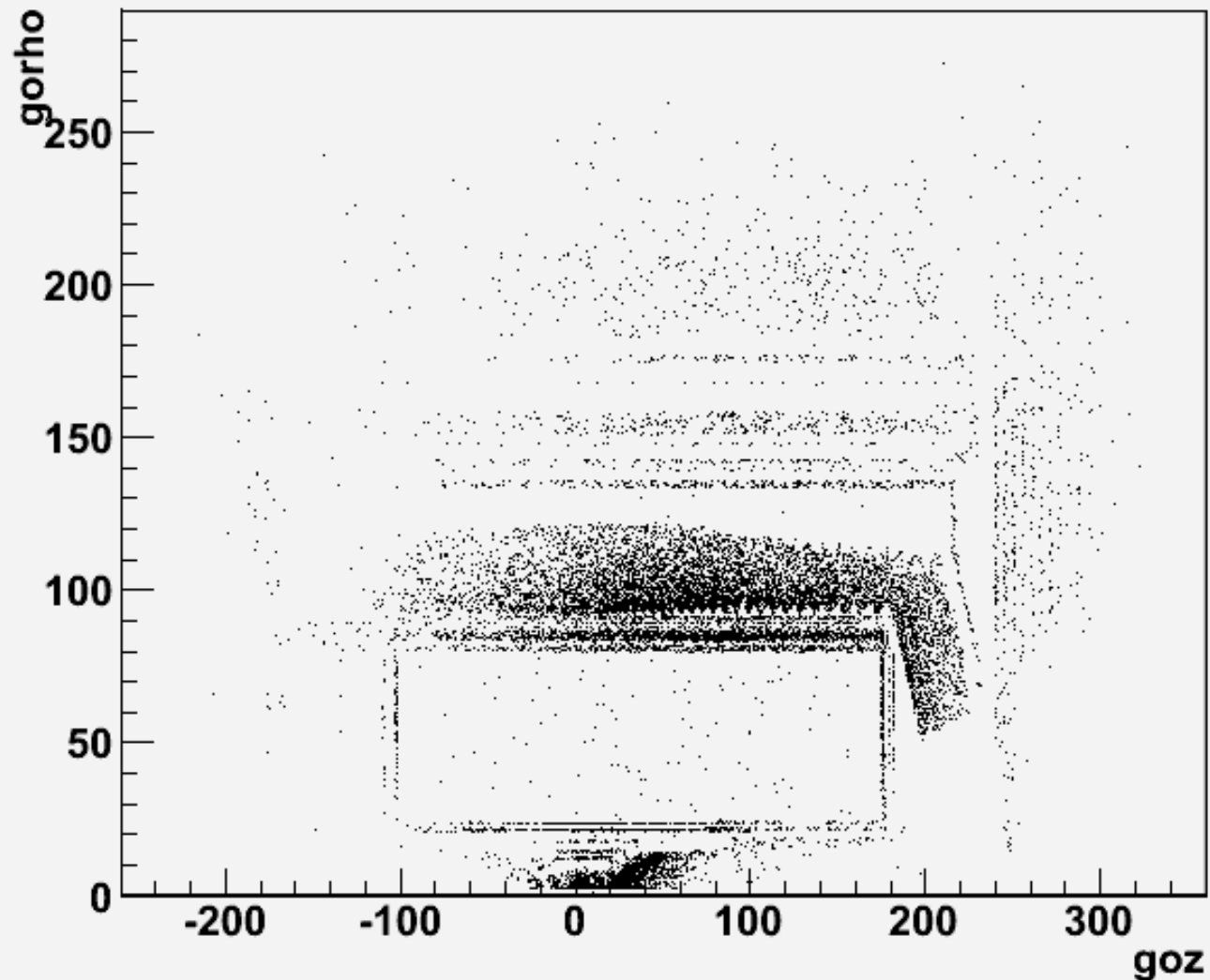
Had. Int. in FastSim

- Discrete hadronic interactions are modeled in 'thin' ($N_{\text{Int}} < 0.3$) materials
 - $\sim 10\%$ of all particles!
- Currently no daughters are produced
- Use BaBar Fullsim to parameterize daughters

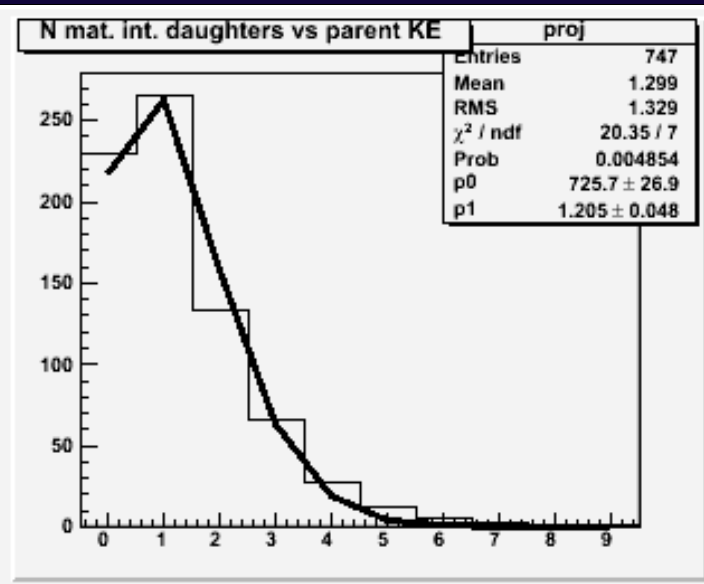
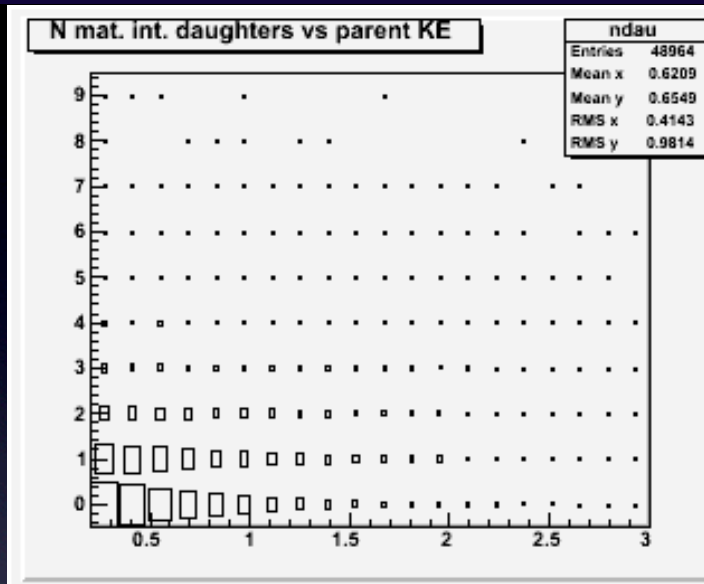


Mat. Int. in BaBar fullsim

gorho:goz {gocause==300}

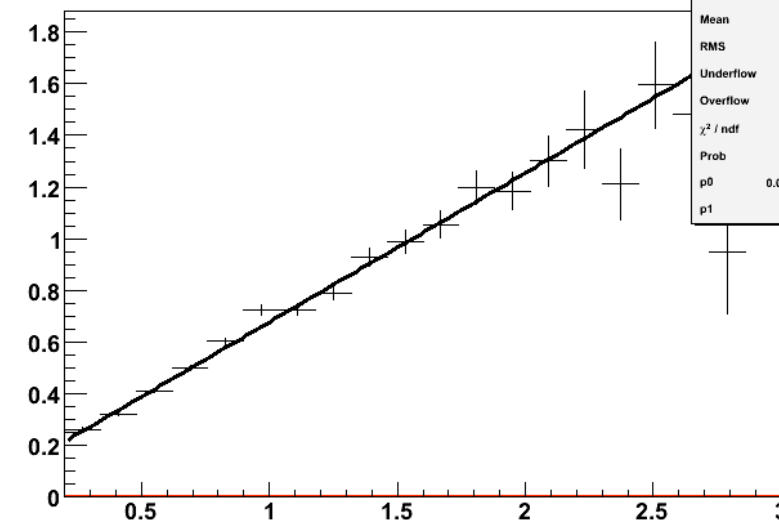


N daughters

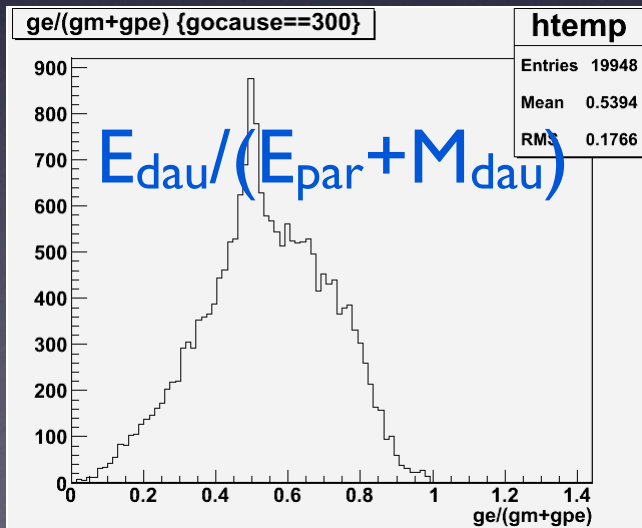
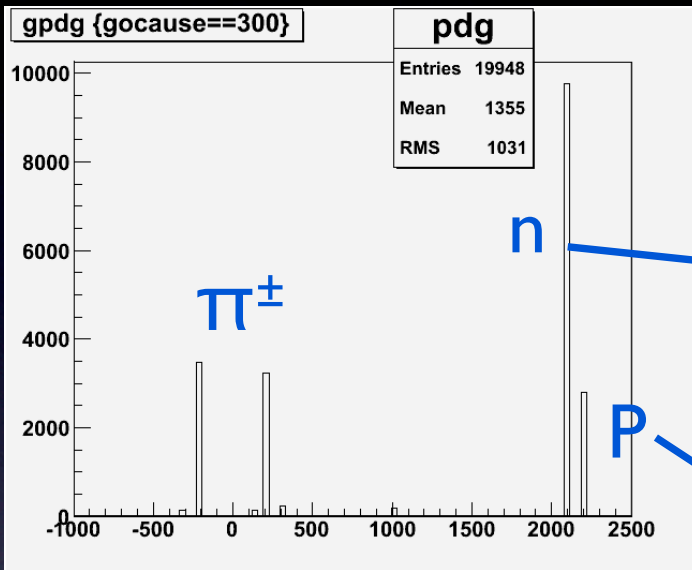


- N daughters depends on K. E.
- fit to Poisson (slices)

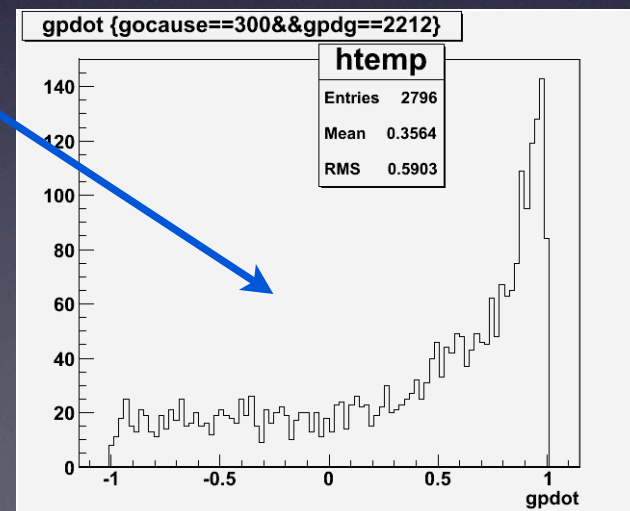
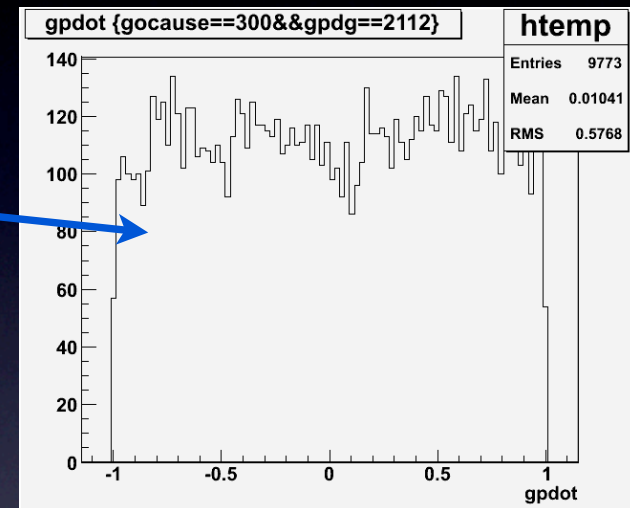
Fitted value of par[1]=p1



Mat. int. Daughters



$$\cos(\theta_{\text{dau}} - \theta_{\text{par}})$$



Conclusions

- Mat. Int. daughters are needed in FastSim
 - few % of tracks
- Studies of BaBar fullsim have begun
 - Oddities of BaBar persistence leave gaps (no π^0 !), but can be worked around
 - Most distributions can be simply parameterized
- Preliminary implementation should be ready for testing in 1-2 days