K0s analysis using simulation data

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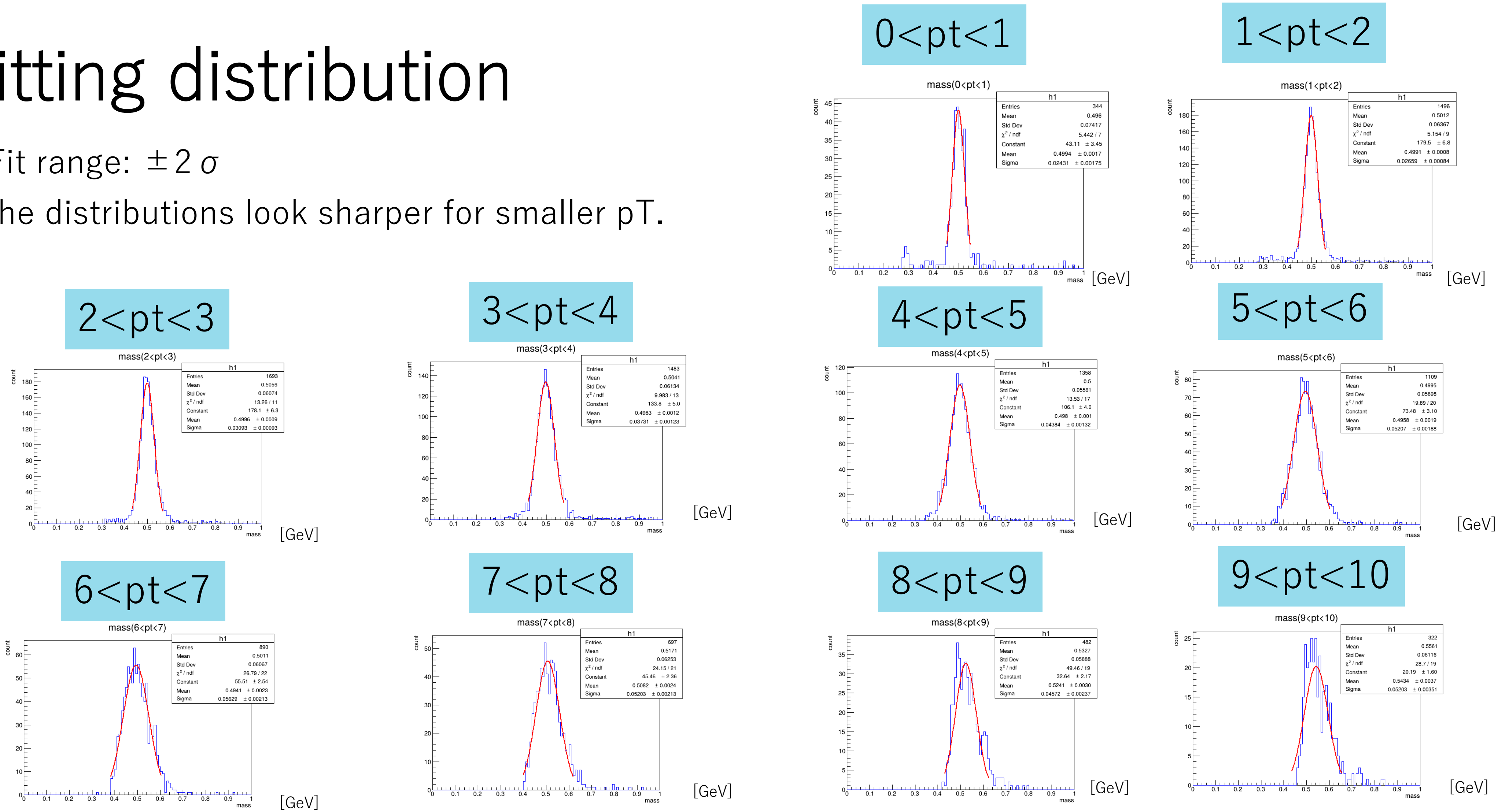
Status

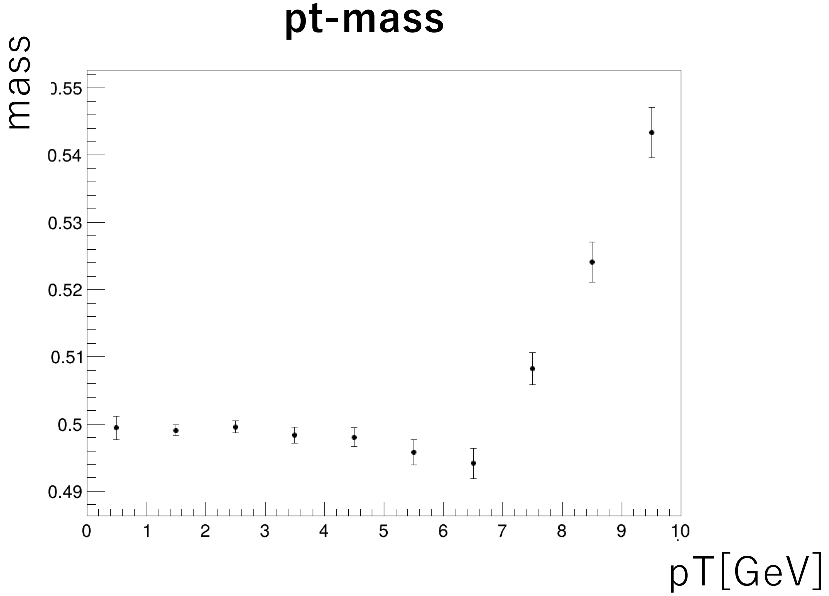
- Increase number of events.(2166→10832events)
- Update fitting result.
- K0s flight distance.

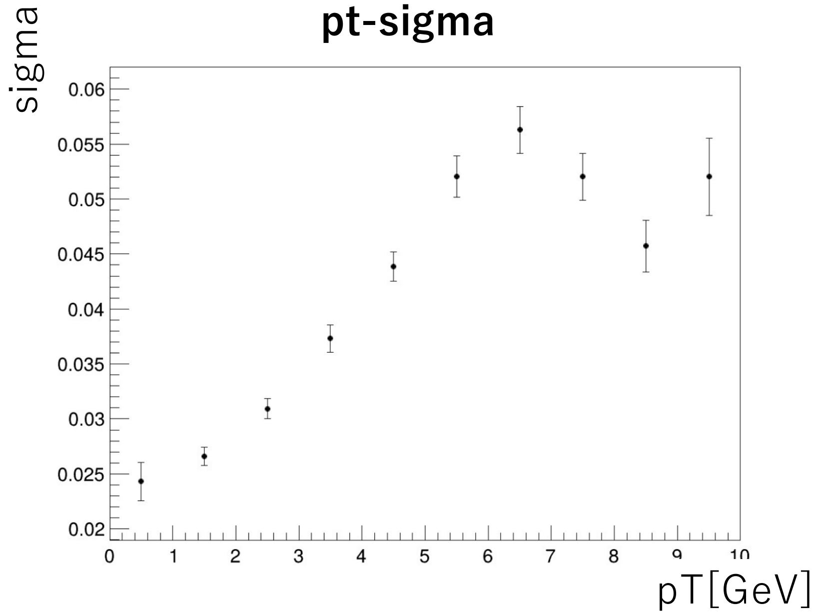
Fitting distribution

- Fit range: $\pm 2\sigma$
- the distributions look sharper for smaller pT.



pt-sigma, pt-mass(mean)





The left figure shows the relationship between the transverse momentum and the sigma.
The sigma values are distributed between 0.02 and 0.06.
The right figure shows the relationship between transverse momentum and the mass.
The mean remains stable at 0.49–0.55 GeV.

How to increase the events

Fun4All_singleParticle_Silicon.C running 1 time＝100 events
Condor：**5000回times**

code①

Fun4All_singlePa
rticle_Silicon.C
＋condor

Ttree①

topo_ana_0.root
(**100×5000events**)
＋DST

code②

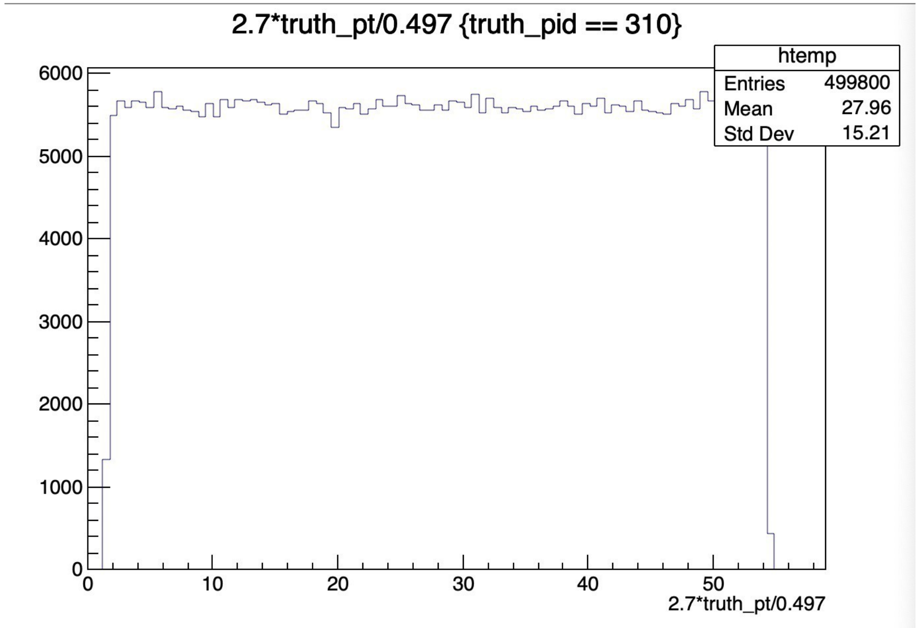
analyze_SiSeed
Pair_k0s_copy.C

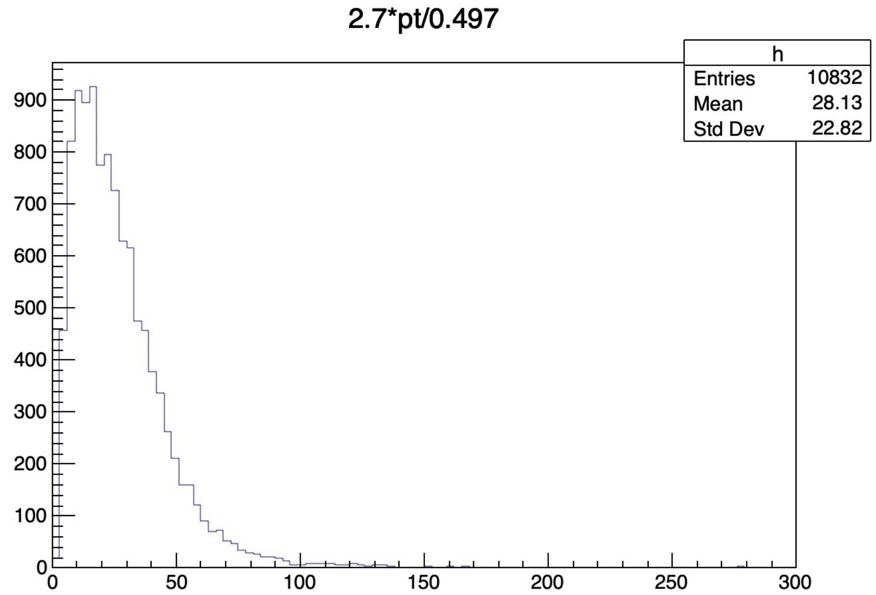
Ttree

update_dphi_distribution_k0s.root
(**10000events**)

- Running analyze_SiSeedPair_k0s_copy.C, the number of events has decreased significantly.

$c\tau\beta\gamma$ distribution





- The left figure shows K0s flight distance of before running analyze_SiSeedPair_k0s_copy.C, and right figure shows K0s flight distance of after running analyze_SiSeedPair_k0s_copy.C.

To do

- Incorporate Jingyu tutorial code for the pt (this will be handled by Hachiya-san).
- https://indico2.riken.jp/event/5445/contributions/27234/attachments/14265/21719/Calc Pt func tutorial Jingyu.pdf