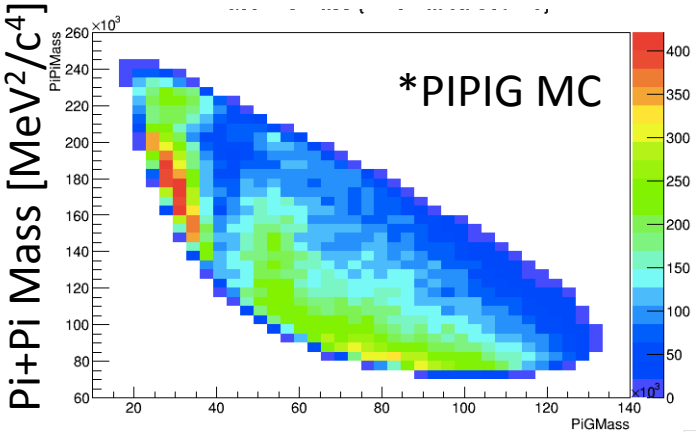
KL pipig analysis

Kinematical Cut

Cut Variable	Selected region	Cut Variable	Selected region
1st chi2	<2	Shape chi2	< 10
2nd chi2 – 1st chi2	>10	Pi0 mass	< +/- 10 [MeV/c^2]
Pi0 mass diff	<+/-5 [MeV/c^2]	Dalitz cut	Graphical Cut
Gamma energy	100<e<2000 [MeV]	klong vertex	2500<vtz<5500 [mm]
Radial gamma position	150<r<850 [mm]	Klong Vertex Time	28<time<33 [ns] (newly added)
Gamma distance	> 150 [mm]		
Fake pi0 mass	< +/-15 [MeV/c^2]		

Dalitz cut applied



- In PDG, branching ratio of kl pipig is
  - < 2.43*10^{-7} with CL=90%
- 1.28*10^{11} KL in 2015 data
- 10^9 KL generation in M.C.
- Signal Box
  - KL Pt < 5MeV/c
  - KL mass < +/- 10MeV/c^2
- Acceptance from signal box

NEED MORE REDUCTION