# P.O.T. comparison

# data

- Minimum bias data
  - ScaledTrigBIt&0x104==0x104
  - Proper data for comparison
- Normalization data
  - Different online veto
- Physics data
  - Different online veto, COE

# Run63 vs Run69

- Run69(21runs)
  - Total #KLs : 2.014e10
  - Pre-scaling : 70
    - #KLs in data = 2.877e8
- Run63(33runs)
  - Total #KLs : 6.178e10
  - Pre-scaling : 300
    - #KLs in data = 2.059e8
- Run69/Run63 = 1.691

# Remaining #events

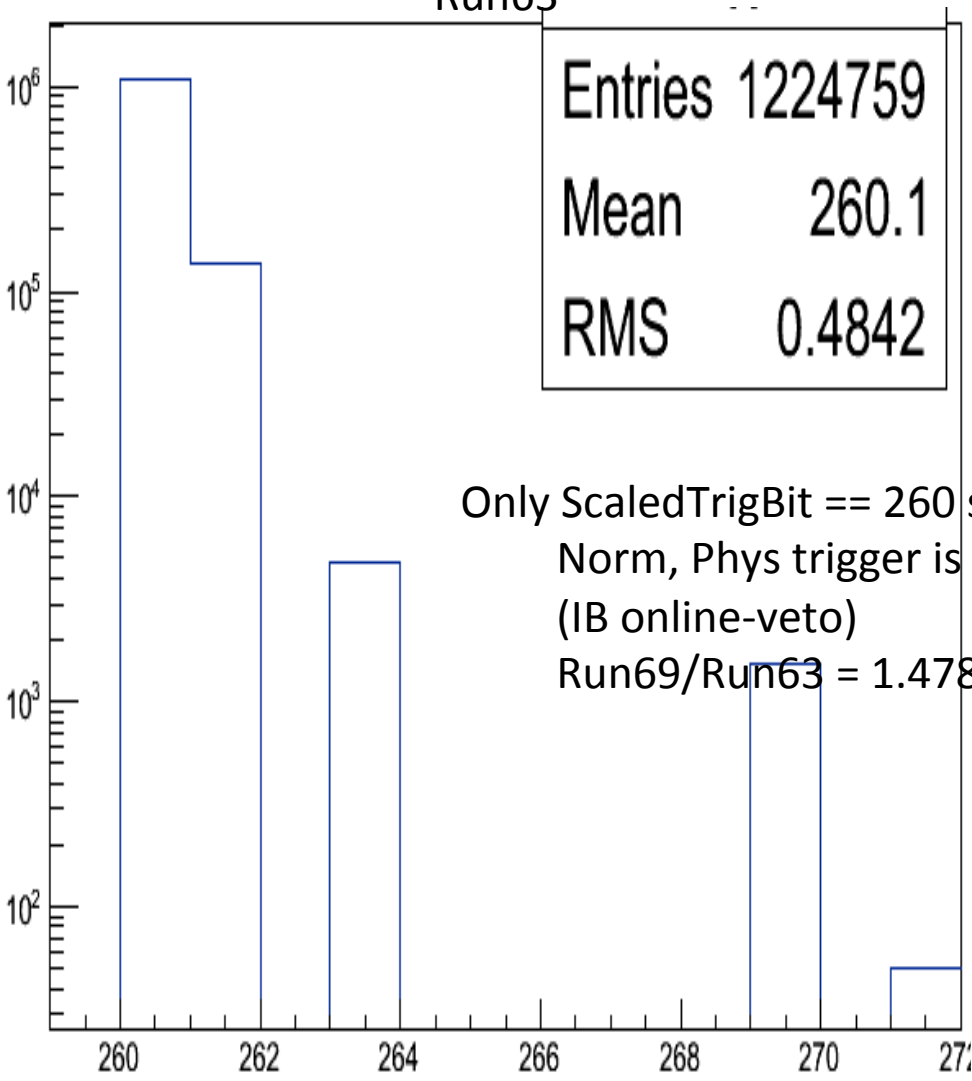
- #Triggers
  - Run69(Run63) : 1637525(1224759)
  - Run69/Run63 = 1.337
- #events after all Kinematical cut.
  - Run69(Run63) : 31391(15363)
  - Run69/Run63 : 2.043
- #events after MB && Kin.
  - Run69(Run63) : 9258(1847)
  - Run69/Run63 : 5.012

CsI Energy calibration?
(temp correction)

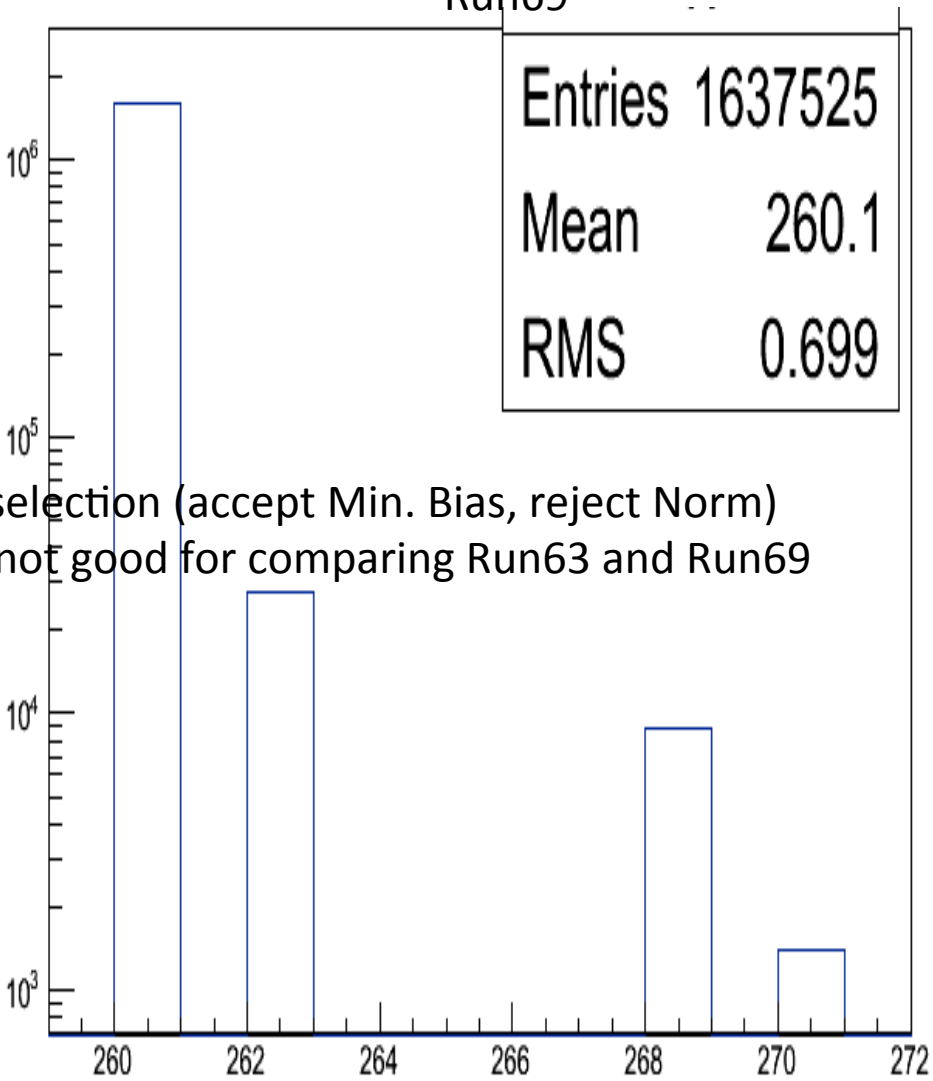
IB effect( new $5X_0$)

# Trigger Bits

Run63




Run69




Only ScaledTrigBit == 260 selection (accept Min. Bias, reject Norm)

Norm, Phys trigger is not good for comparing Run63 and Run69 (IB online-veto)

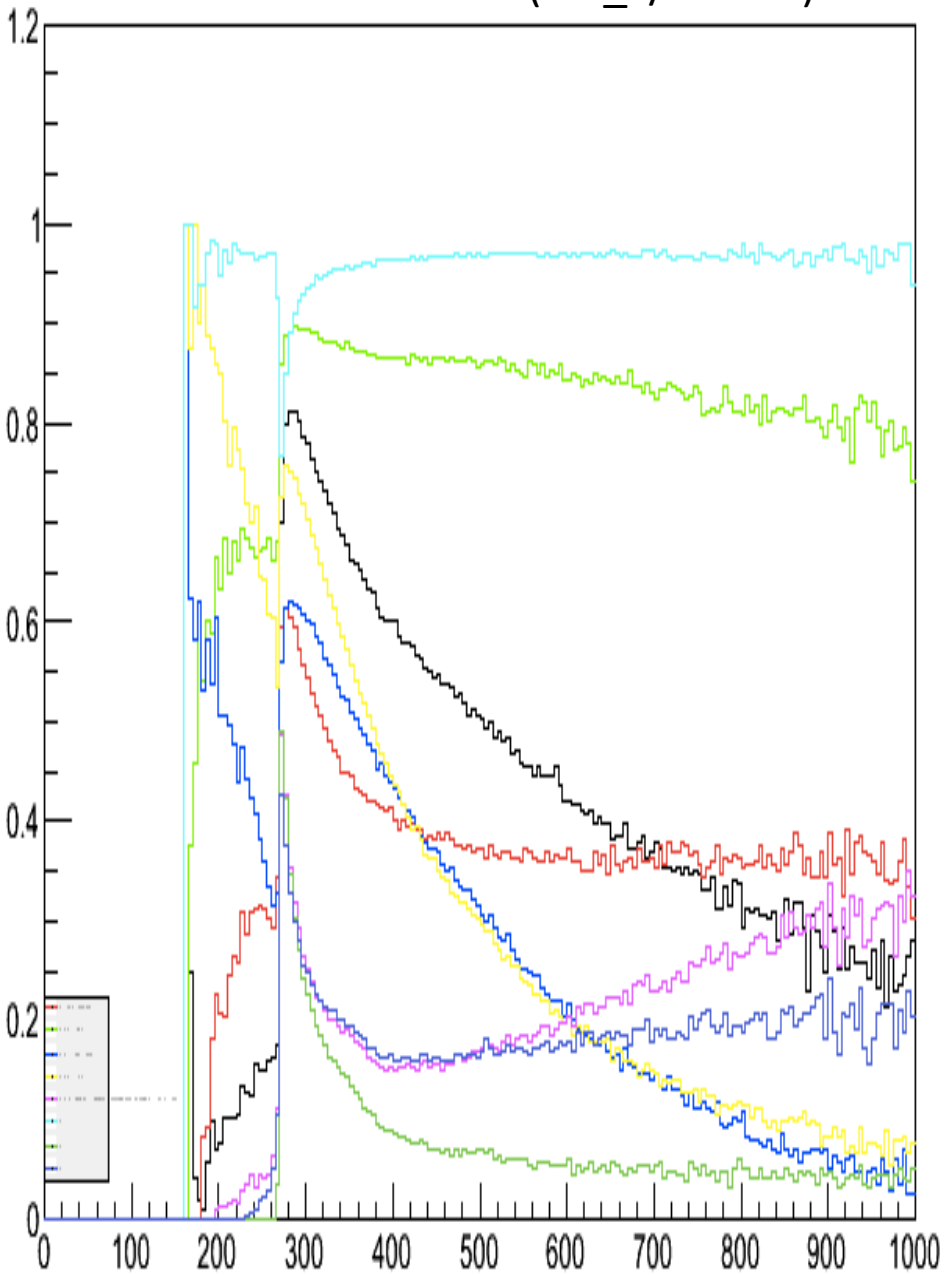
Run69/Run63 = 1.478

# Kinematical cut

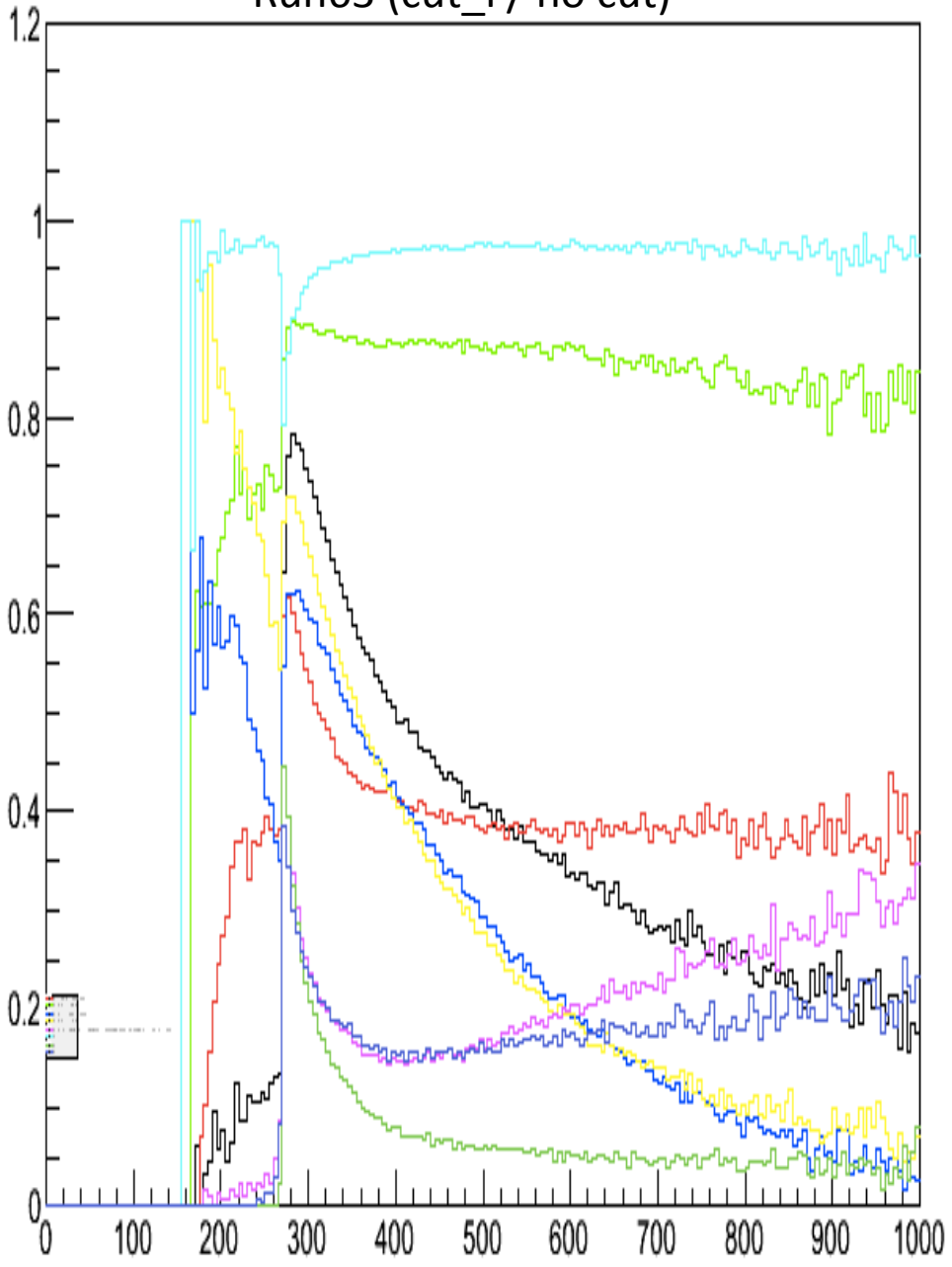
*"Energy cut, 10MeV<E<2000MeV",*
*"CsI Fiducial cut, 150mm<R<850mm",*
*"Distance cut, 150mm<d",*
*"KL vertex cut, 3000mm<vtx<5000mm",*
*"KL PT cut, PT<11.1MeV/c",*
*"KL chi2 cut, chi2<3.0"*
*"KL 2nd chi2 cut, chi2<4.0"*
*"Pi0 mass cut, (134.98-5.125)MeV/ MASS<(134.98+5.125)MeV/c^2"*
*"Pi0 vtx cut, pi0 vtx - KL vtx < 100mm"*

# Kinematical cut effect

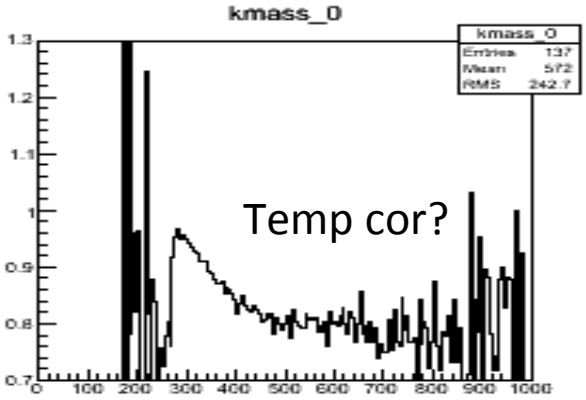
Run69 (cut_i / no cut)

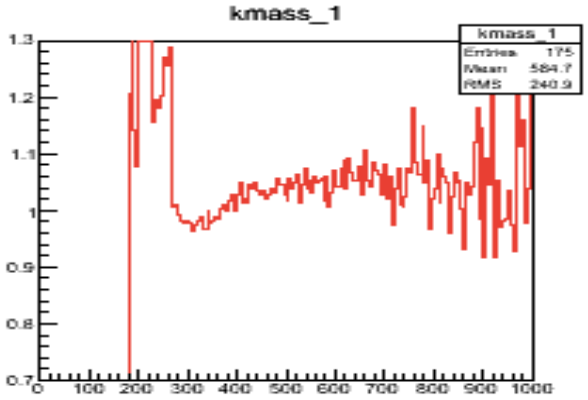


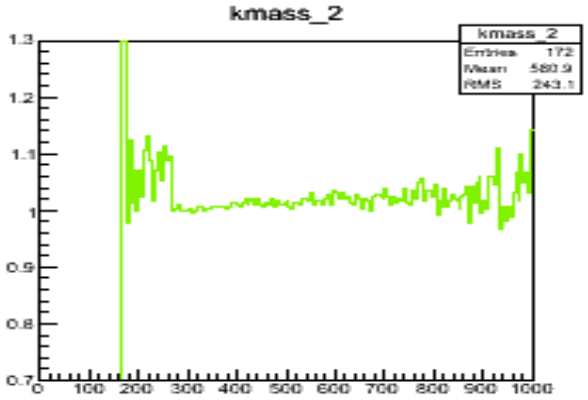

Run63 (cut_i / no cut)

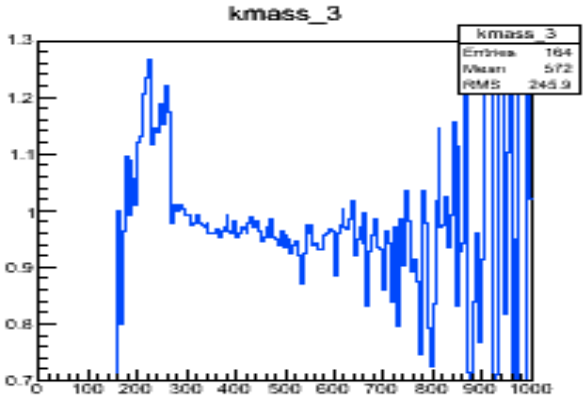


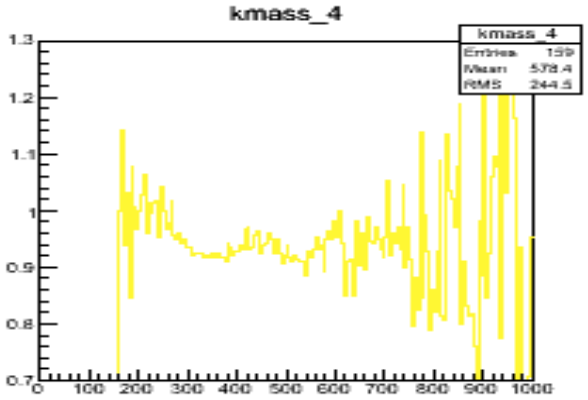
# Kinematical cut effect (run63/run69)

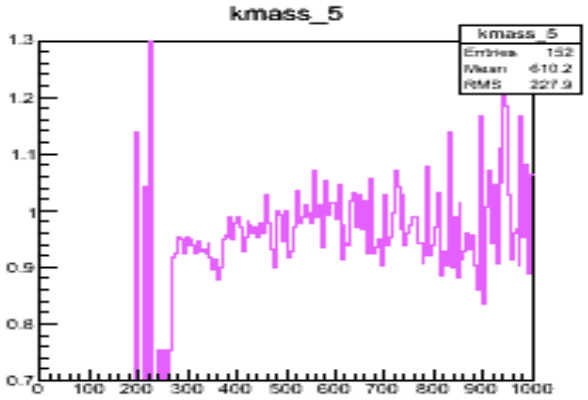


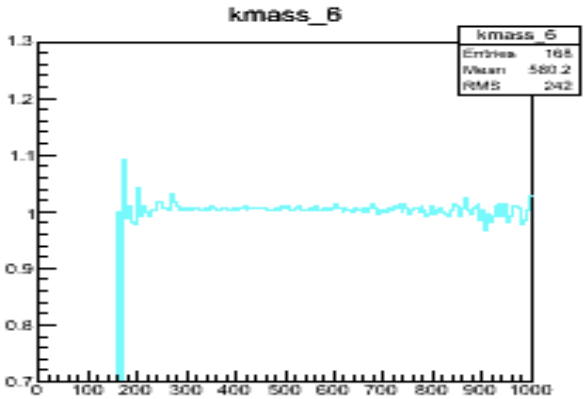



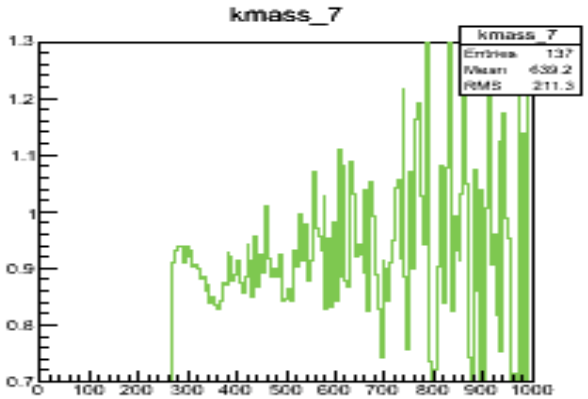



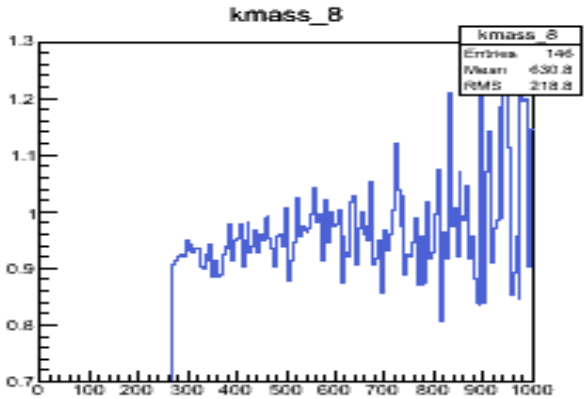



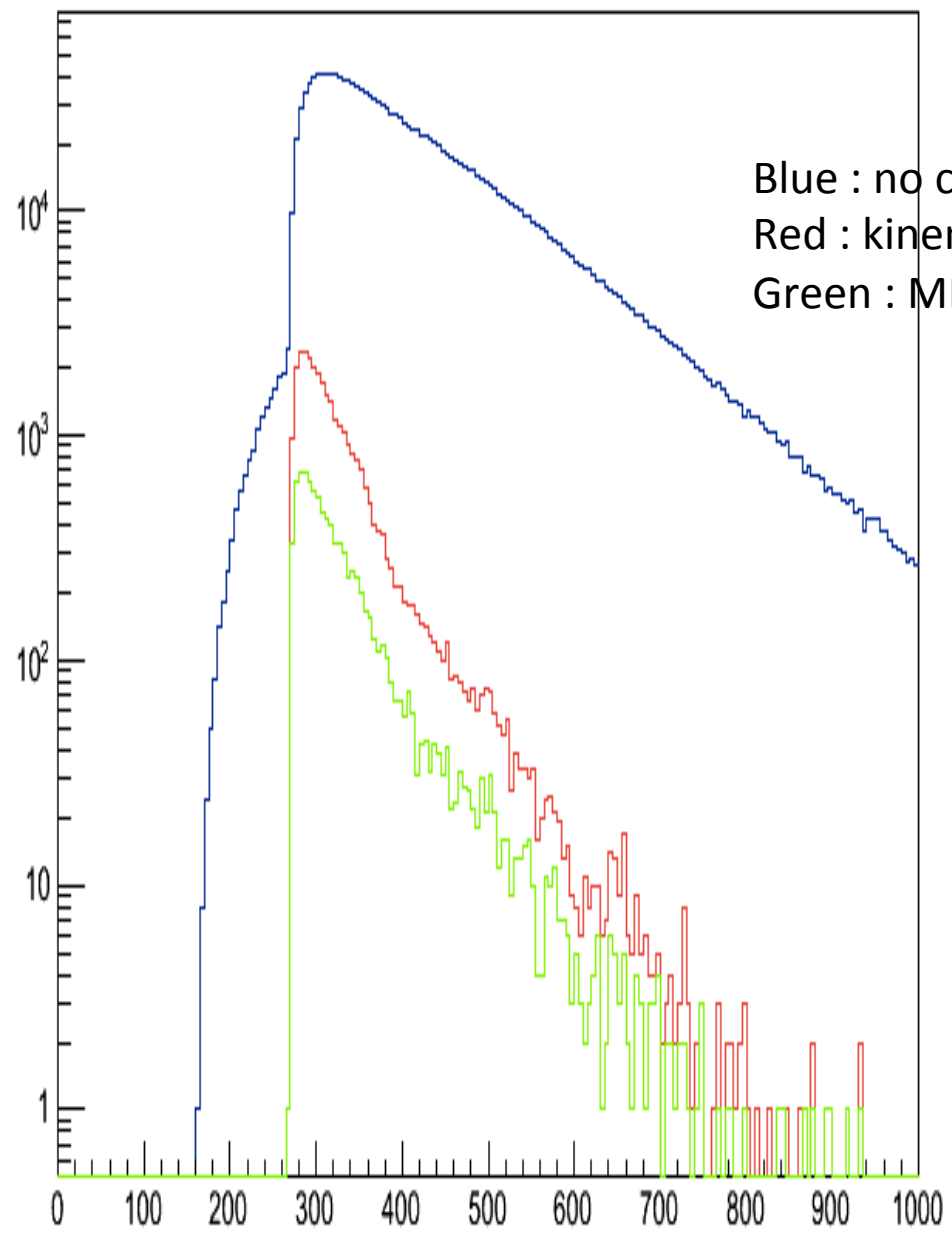



# Kl mass

run69




run63