pixel-only performance with data loss & PU50

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Pixel upgrade simulation technical meeting

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setup & input samples

stdgeom

- CMSSW_423_SLHC4
- CMSSW_4_2_3_patch3/ RelValTTbar_Tauola/GEN-SIM/ DESIGN42_V11_110612_special-v1
- 5000 events PU50

phase1

- CMSSW_423_SLHC2
- CMSSW_4_2_3_SLHC2/ RelValTTbar_Tauola/GEN-SIM/ DESIGN42_V11_110603_special-v1
- 5000 events PU50

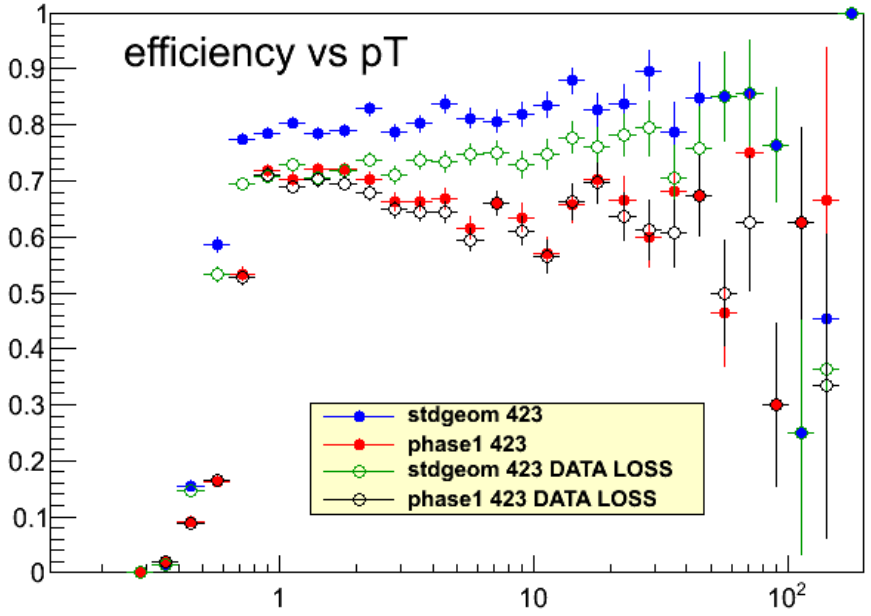
- samples with data loss: simSiPixelDigis.AddPixelInefficiency = 20

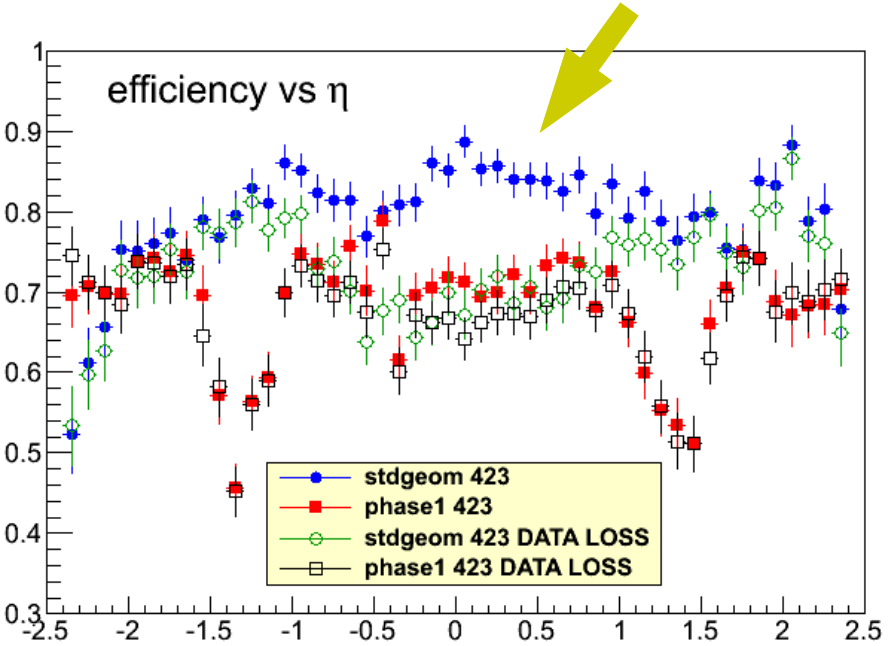
HLT setup

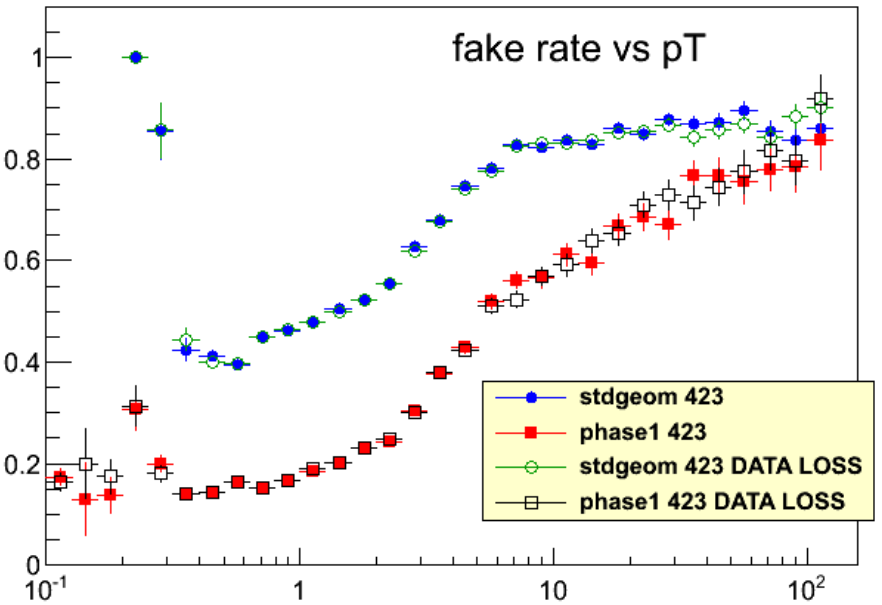
- simplified L2.5 HLT schedule with BTagIP sequence only:

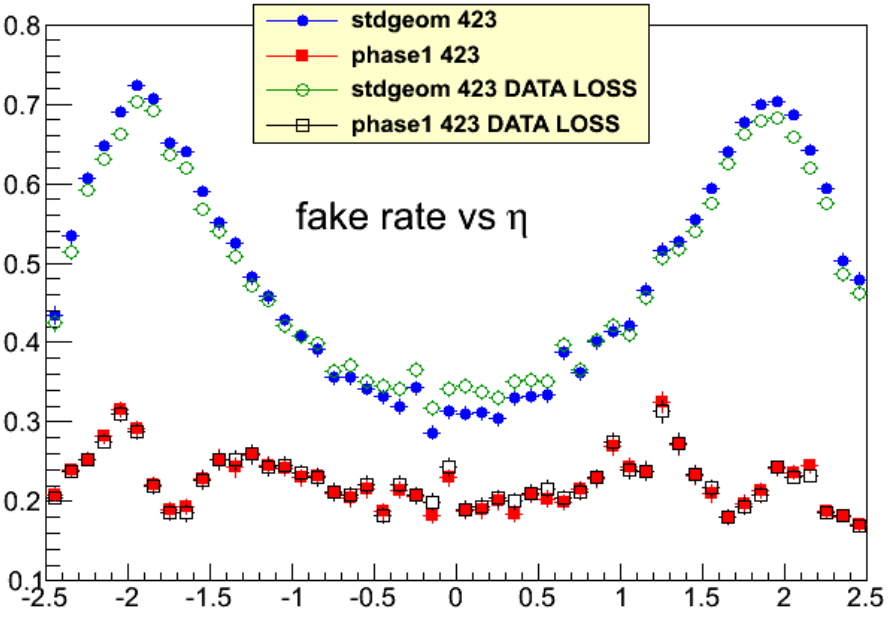
```
process.hltBtagIPPath = cms.Path(
     process.HLTBeginSequence
   + process.HLTRecoJetSequenceAK5Corrected
   + process.HLTBTagIPSequenceL25
)
```

hltPixelTracks efficiency & fake rate

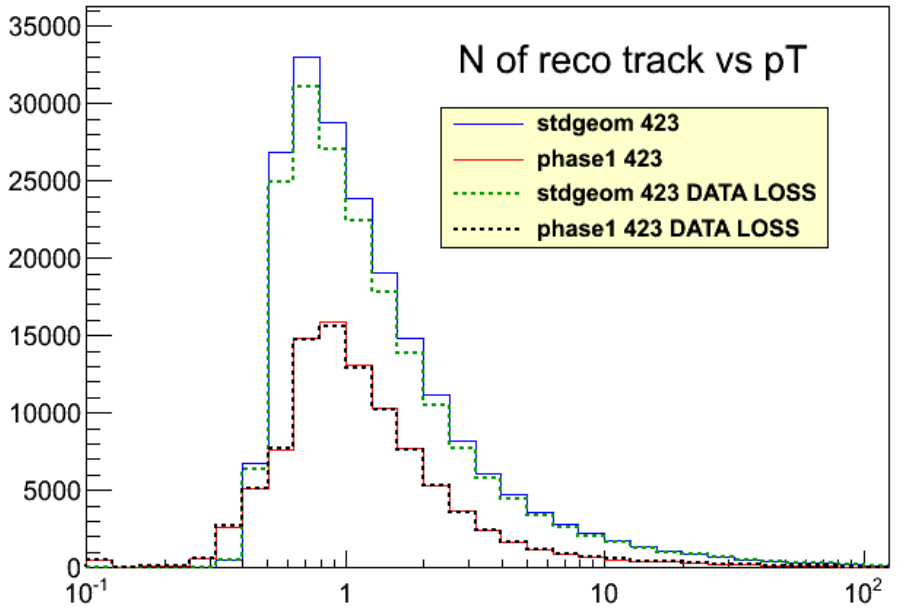


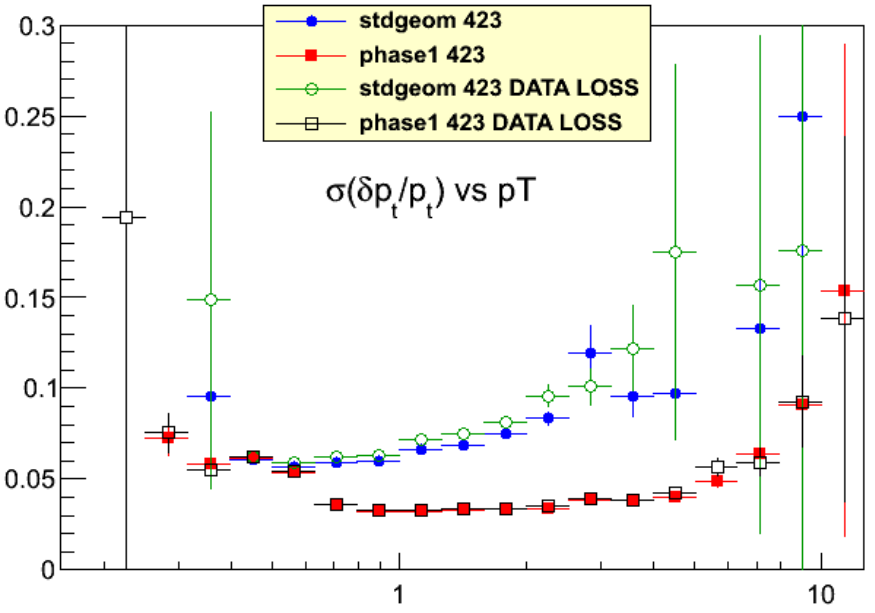


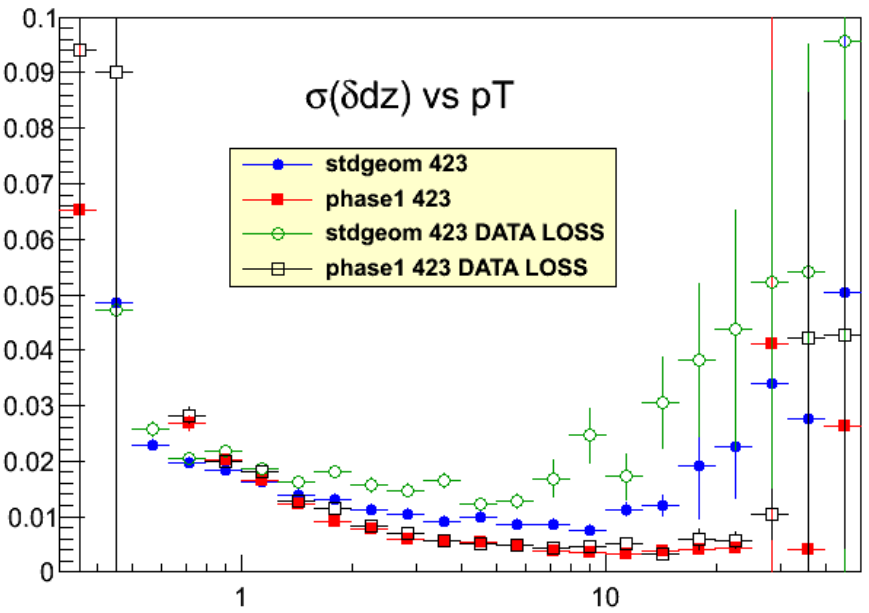


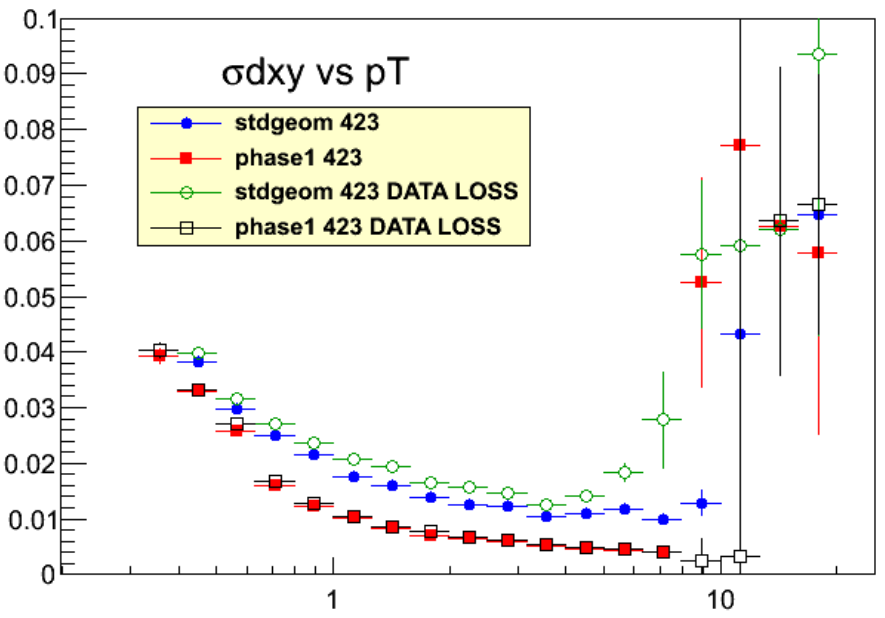


hltPixelTracks tracking performance

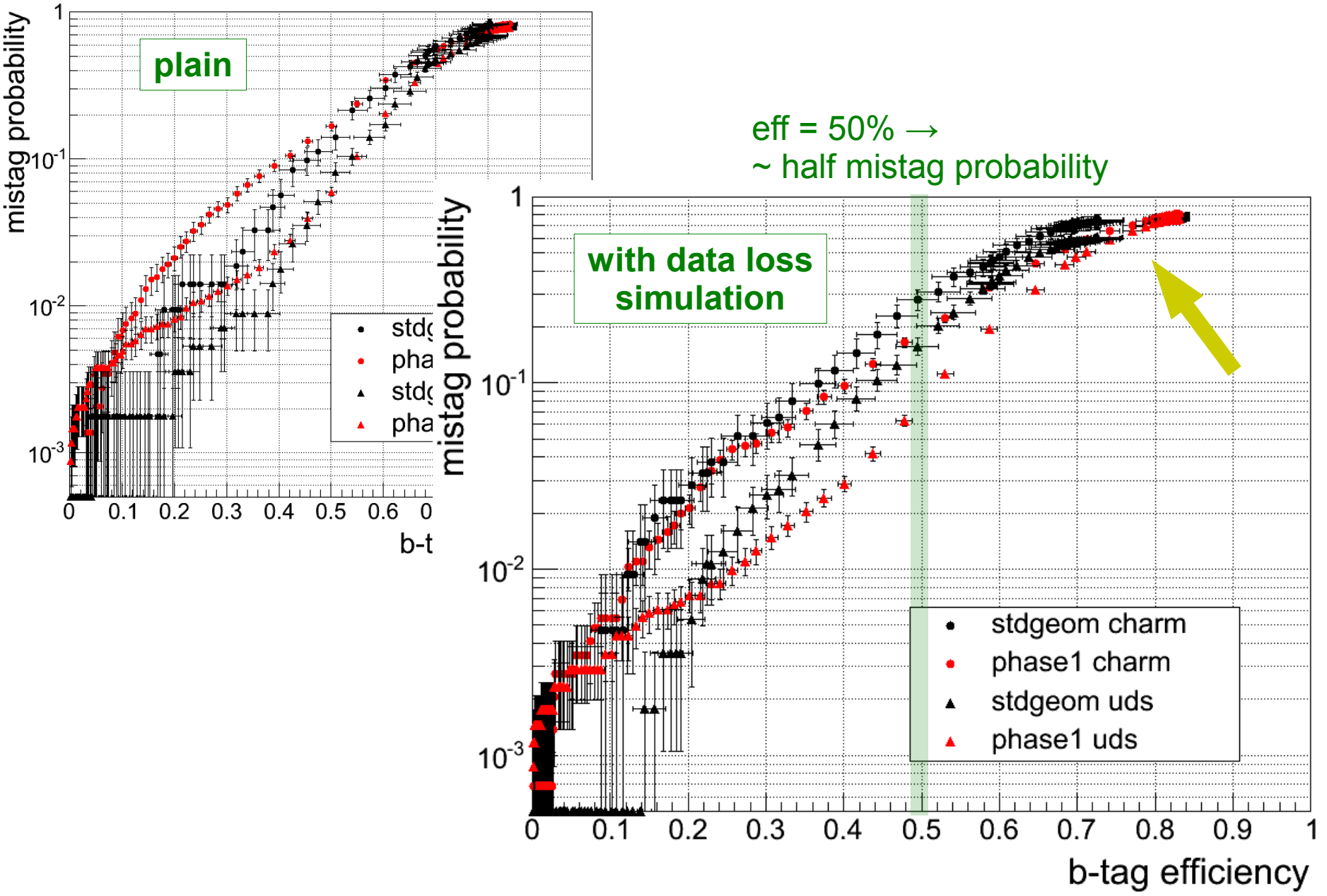




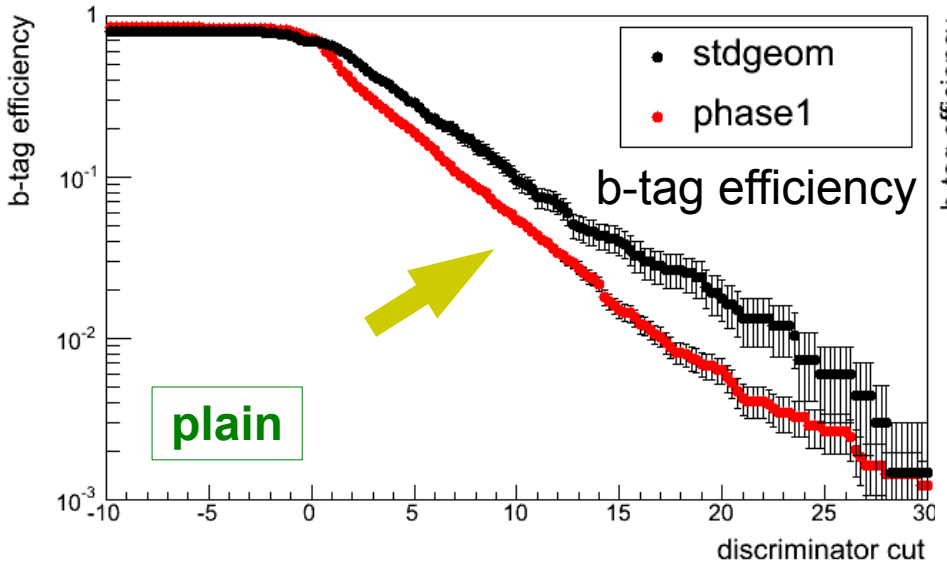


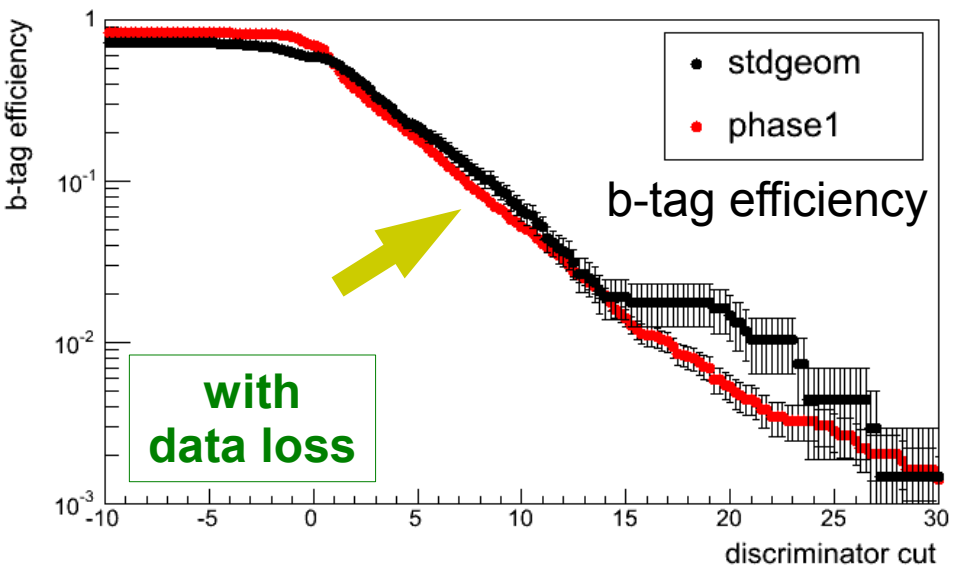


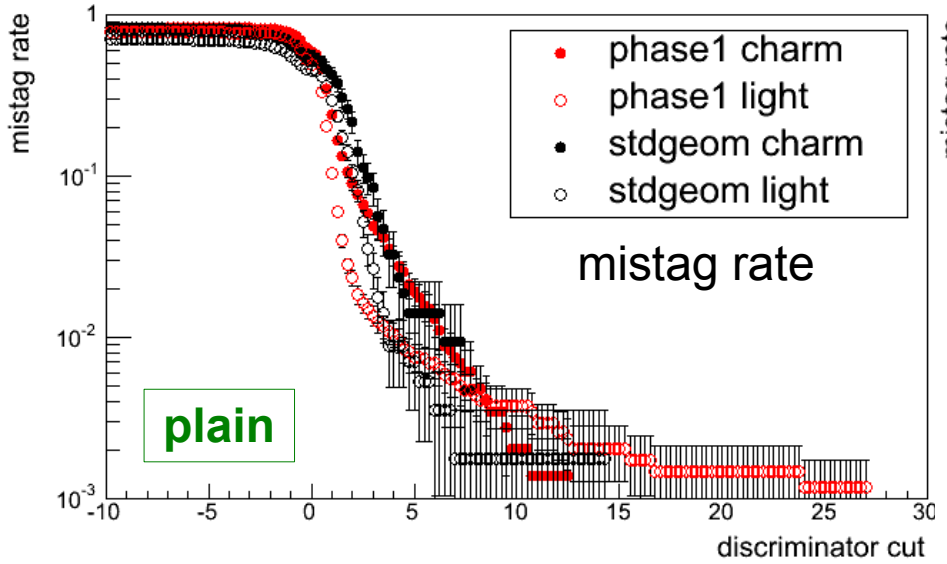
hltPixelTracks b-tagging performance

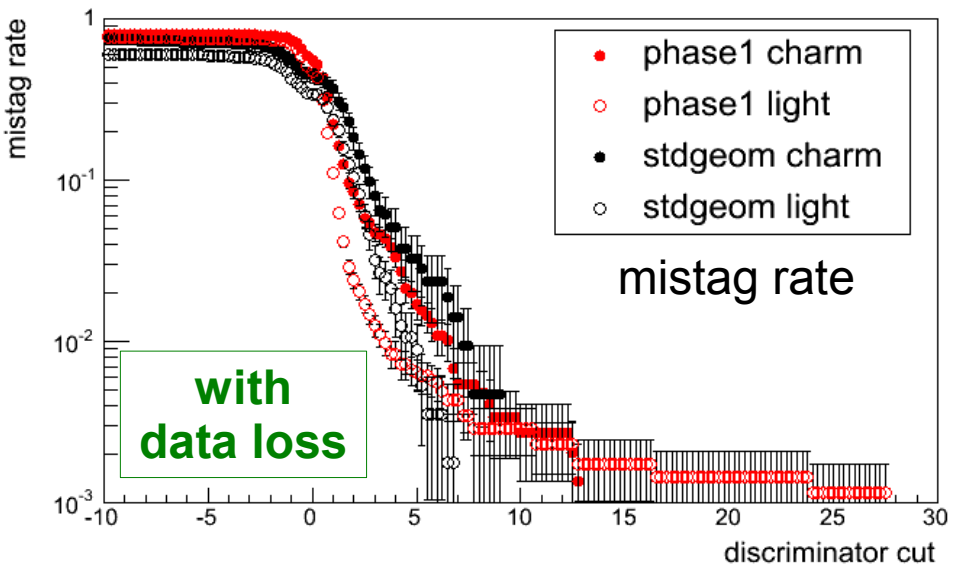


hltPixelTracks b-tagging performance









b-tagging performance **without pile-up** in 423

4000 events ttbar, PU-0 (no data loss simulation)