

**Observation of first dijet event in CMS
(run 123592)**

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Fermilab



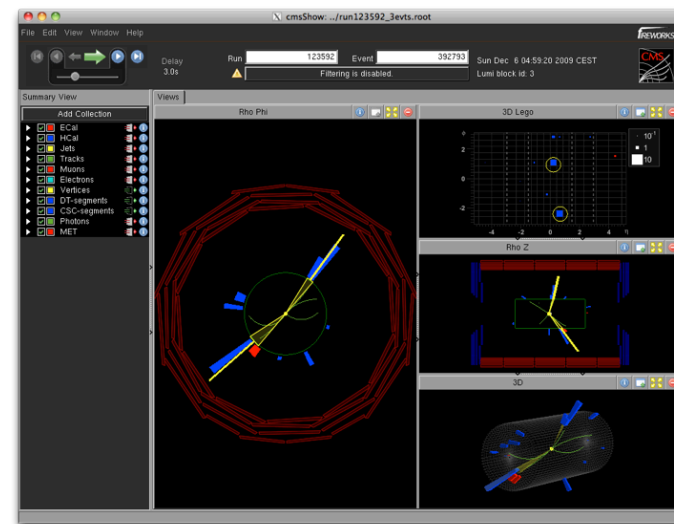
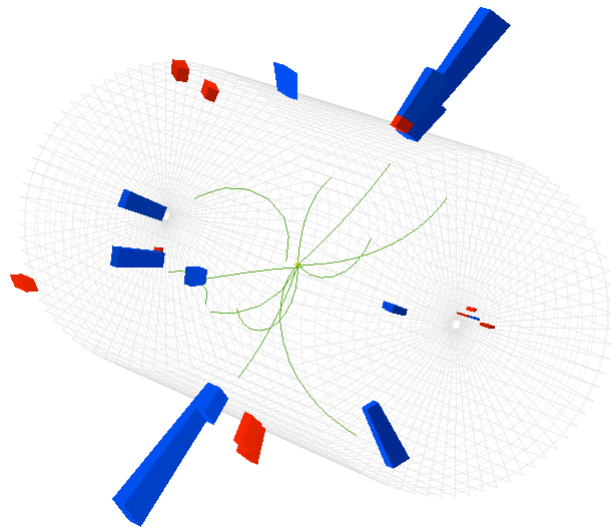
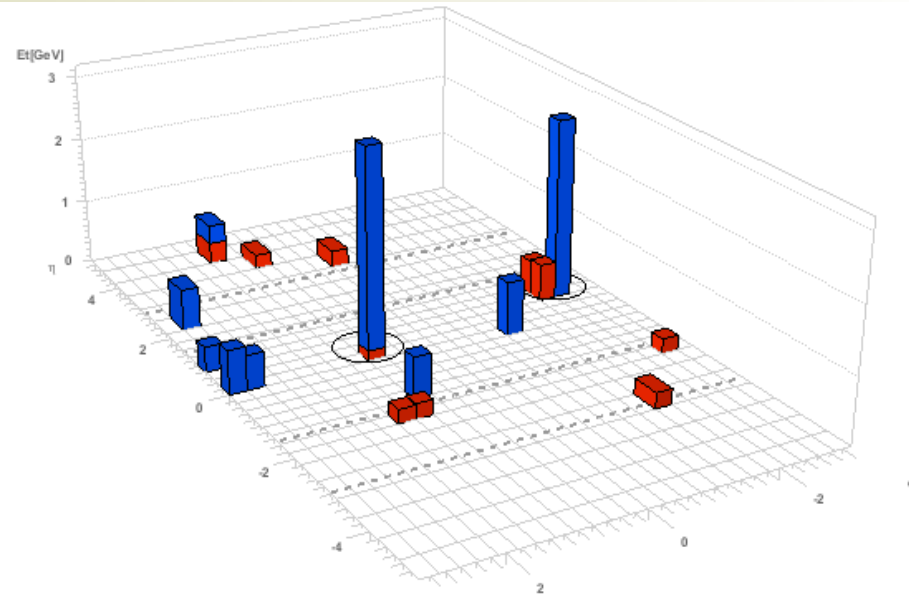
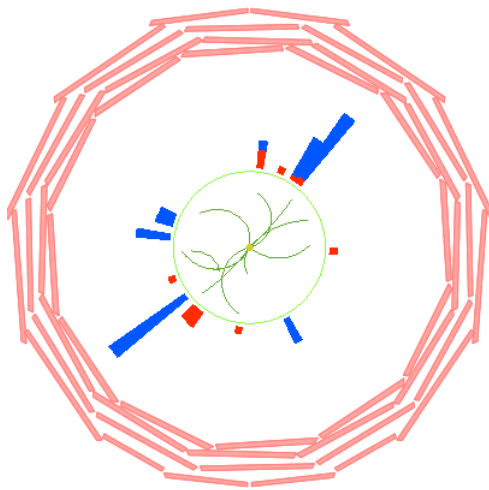
First candidate dijet event

- ◆ This preliminary analysis uses run 123592
 - Min Bias data at $\sqrt{s} = 900$ GeV
 - B-field off, tracker TOB on, stable beam
- ◆ Use uncorrected anti-kt 0.7 CaloJets, CMSSW 3.3.4

```
*****
*   evt No *   pt *   eta *   phi *   emf *   MET *
*****
392793   5.21 GeV   0.69   -2.42   0.32   3.32 GeV
          4.36 GeV   0.22   0.94   0.05
*****
```

- ◆ Looks like a legitimate dijet event
 - Two jets are almost back-to-back in ϕ , both are in barrel
 - Small missing E_T , Event EM Fraction = 0.17, Charge Fraction = 0.53
- ◆ Tracks point to CaloTowers, BCS trigger fired, good primary vertex

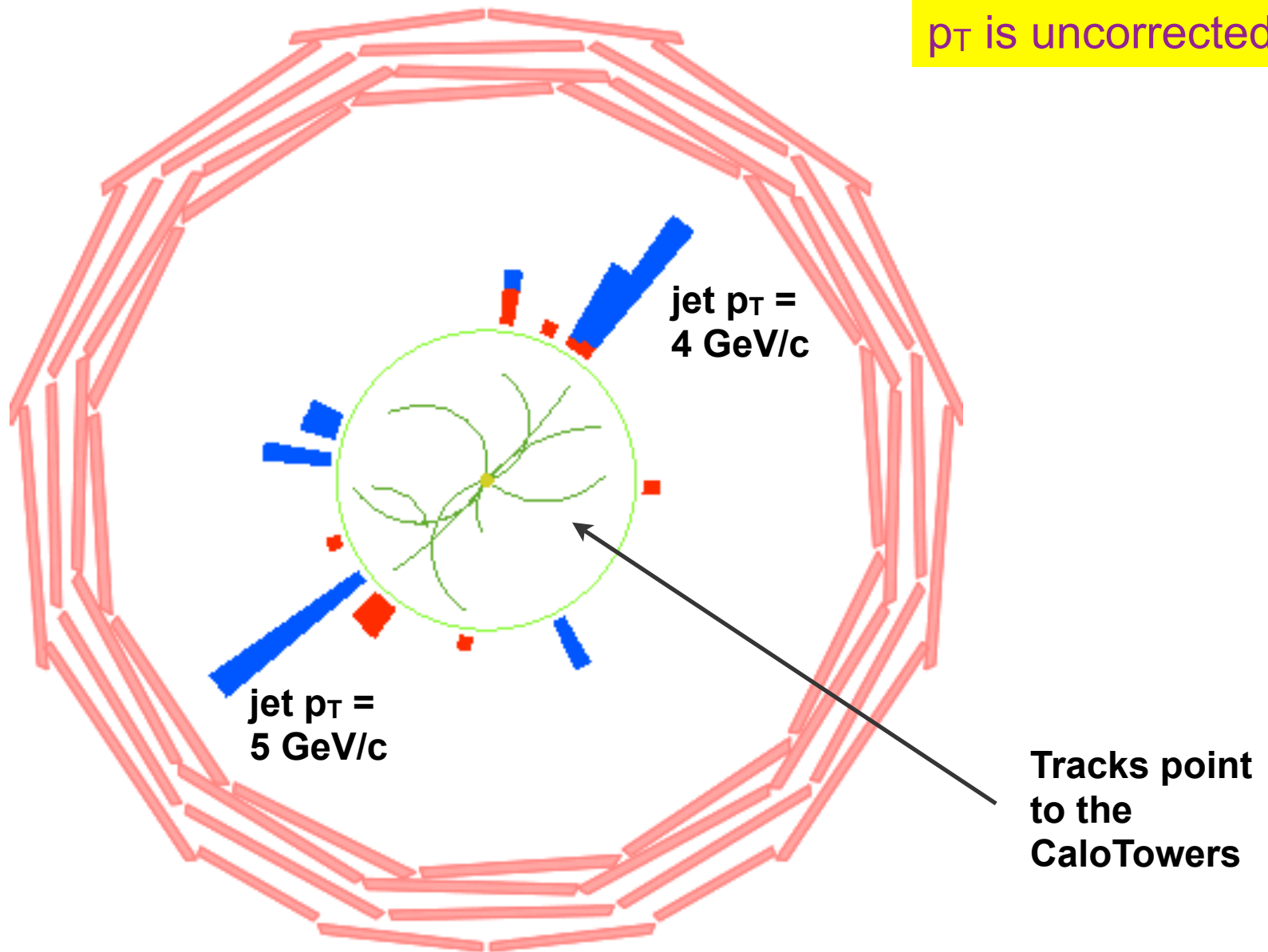
Event display of the first candidate dijet event



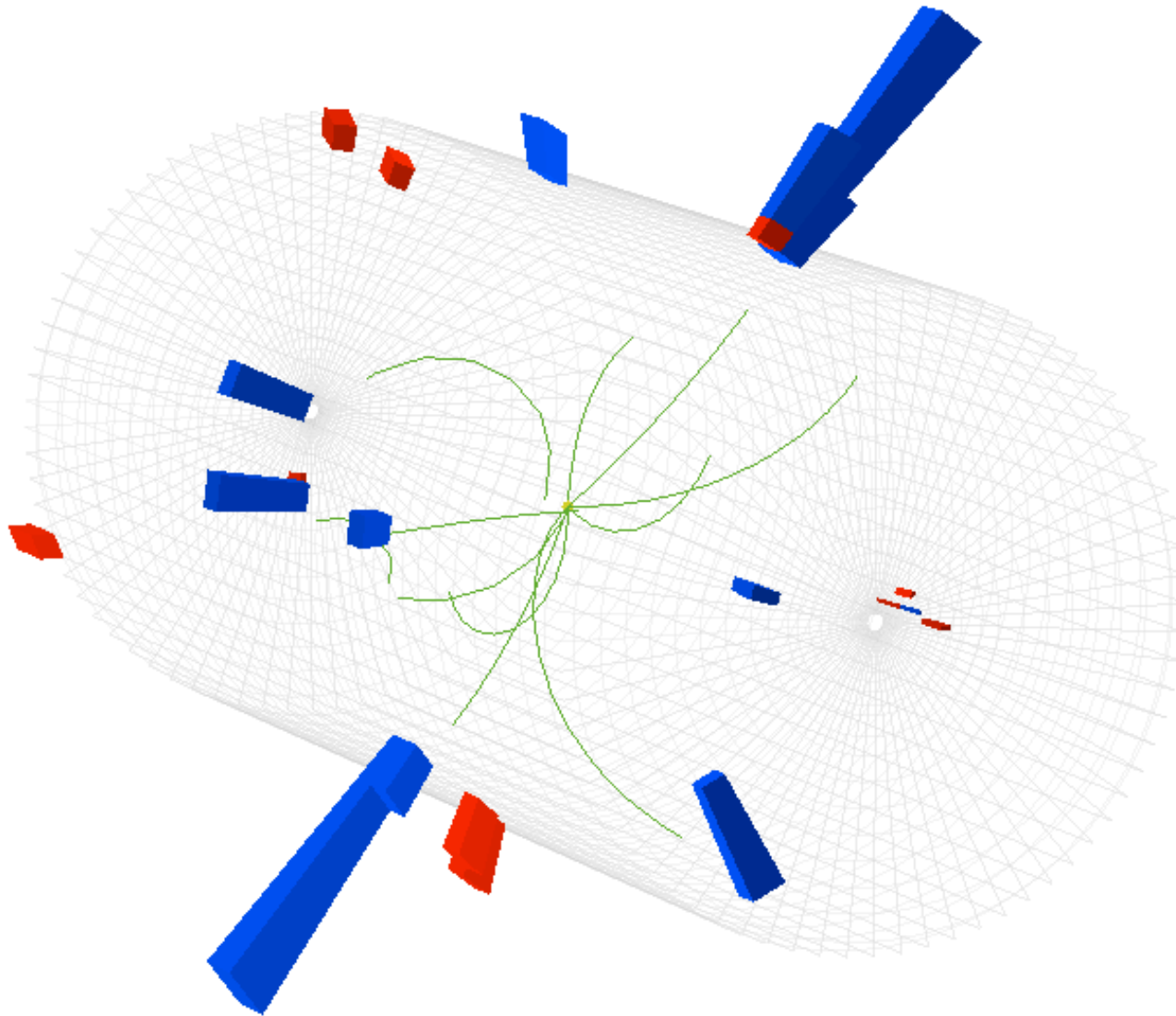
First candidate dijet event ($\rho\phi$ view)



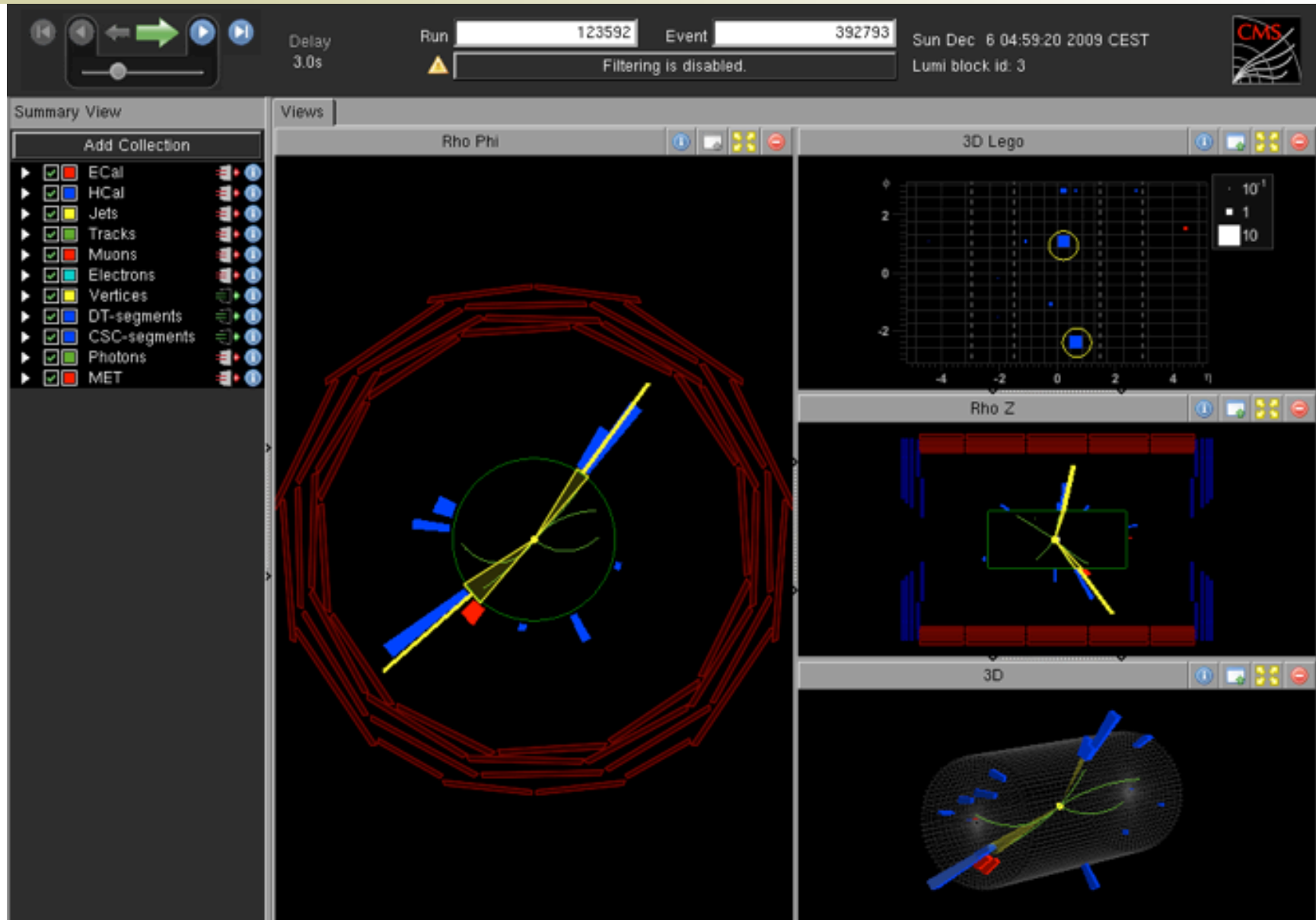
p_T is uncorrected



First candidate dijet event (3D view)

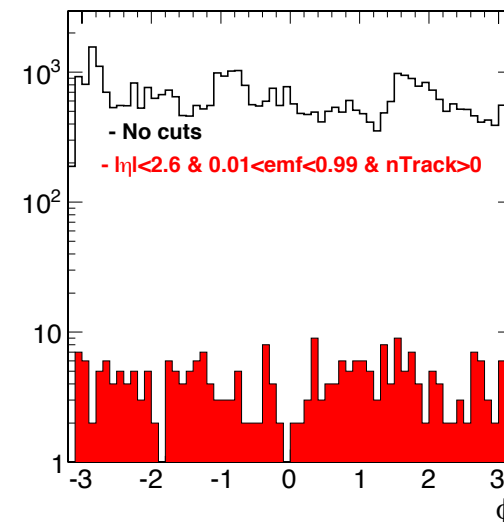
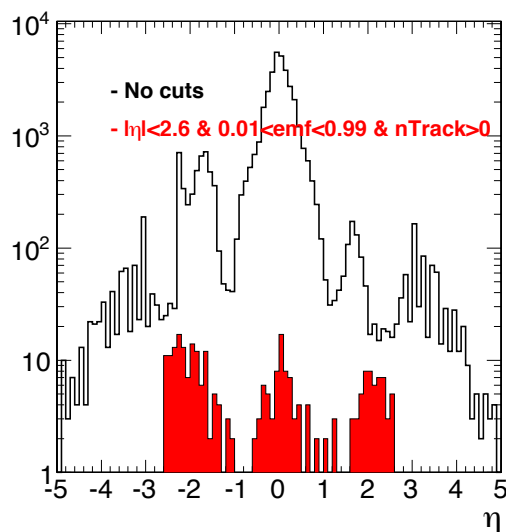
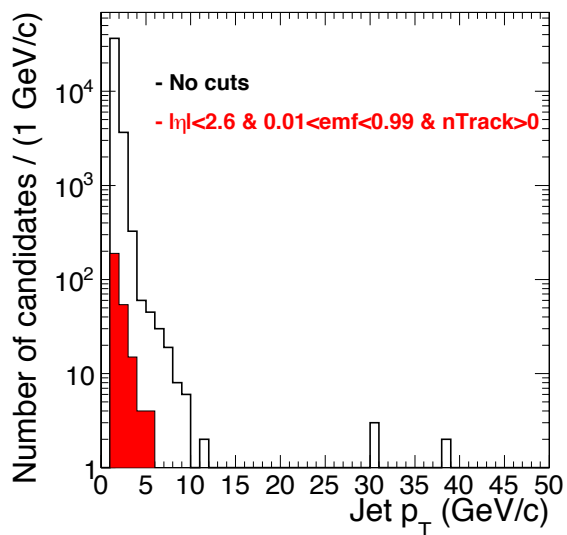


First candidate dijet event - combined view





p_T , η , and ϕ distributions



The first visualization of the track jets and comparison with CaloJets can be found here:

http://cern.ch/lowette/trackjets_123592_392793.png