Request I

Files: 2009 jet Trees
Size: Approx. 2.1 TB + 465GB (jet and skim trees)=2.6 TB for data
Simulation: 81 GB (pythia.root)+67GB (jet trees)+ 81 GB (jet and skim for trigger filtered simulation) = 229GB

Production Information

Files are **data** from the 2009 run & **embedding** with the same setup
Species: p+p
Production: P11id
Library SL11_embed
Further info in starnote (psn0573)

File Description

The files contain "skim" trees and "jet" trees

The data jet trees contain 6 branches:

- CDF Midpoint Cone jet algorithm, Radius = 0.7, TPC nHits = 12
- CDF Midpoint Cone jet algorithm, Radius = 0.7, TPC nHits = 5
- Anti_kT jet algorithm, Radius = 0.6, TPC nHits = 12
- Anti_kT jet algorithm, Radius = 0.6, TPC nHits = 5
- Anti_kT jet algorithm, Radius = 0.5, TPC nHits = 12
- Anti_kT jet algorithm, Radius = 0.5, TPC nHits = 5

The embedding files contain the pythia record in the pythia.root files (RF & FF)

Jet trees were produced from the pythia.root files and contained 6 branches, one each for particle level jets and parton level jets for the CDF midpoint cone algo with R=0.7, and the Anti_kT algo with R=0.6 and R=0.5.

Simulated events which passed the trigger filter where run through the full GSTAR simulation package and jet and skim trees were produced from the resulting MuDsts. These jet trees contain 20 branches which are largely specific to the 2009 200 GeV dijet analysis. All branches use the Anti_kT algo with R=0.6 and there are branches for the nominal detector level, particle level and parton level. In addition, there are 7 branches for detector level jets found after the tracking efficiency had been decreased by 1 - 7%, 2 branches for detector level jets found after the track pt had been adjusted up and down by 1%, and 8 branches for detector level jets found after the calorimeter tower ET had been adjusted up and down by 3.7, 3, 2, and 1%.

Physics Analysis related to the request

This request is related to the analysis of the Run9 data to extract the dijet cross-section and the longitudinal double spin asymmetry A_LL. This is an analysis that had a paper preview on 8/19/2014 and we expect a GPC to be formed soon.
In addition this data is critical for the ongoing analysis of the inclusive jet cross-section from 2009 data.