Documentation

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On behalf of the jet trigger signature group
Jet Trigger Readiness Review – 26/5/2015

Purpose

- Plan for documentation to describe the infrastructure we developed

- An internal note:
  - Will avoid lots of unnecessary explanations to clients of the jet trigger
  - Will let us remember what was done and why

- A CONF note with initial data taking results
  - Document initial jet trigger performance
  - Show in conferences throughout the year

- A paper documenting jet trigger performance in 2015
  - Start preparing now and add new results as they happen

ATLAS NOTE

ATL-COM-PHYS-2015-XXX

26th May 2015

Draft version 0.1

ATLAS Jet Trigger Menu for Initial LHC Run II

The ATLAS Collaboration[1] and Jet Trigger Signature Group[a]

[a]*ATLAS Collaboration*

Contents

CONF note

- Jet trigger ``standalone'' performance and properties
  - Number of topoclusters per event
  - Timing plots with partial scan
  - pT spectra for all jets
  - Trigger rates for each chain
  - Rate vs. N_{PV} or ρ, with and without subtraction
  - Jet pT vs. N_{PV} or ρ, with and without jet subtraction
  - Jet multiplicity vs N_{PV} or ρ, with and without subtraction
  - Re-clustered jet turn on curve compared to fat-jet turn on curve
  - Jet cleaning on data scouting jets with each successive cut

- Online vs. offline comparisons
  - Comparison of pileup energy density online and offline
  - Turn on curves w.r.t. offline for different jet collections and calibrations
  - pT resolution w.r.t. offline for different calibrations
  - Angular resolution for all jets w.r.t. offline
  - Jet energy resolution and invariant mass resolution for data scouting jets