

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 Collaboration¹ and Jet Trigger Signature Group^a

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11	Contents
12	1 Introduction
13	2 Overview of the jet trigger
14	3 Jet trigger menu
15	3.1 Menu design
16	3.1.1 Naming of jet triggers
17	3.2 Jet trigger menu for 2015
18	3.2.1 Express stream menu
19	4 Jet trigger software
20	4.1 Jet trigger configuration
21	4.2 Online selection software
22	4.2.1 Design and changes with respect to LHC run 1
23	4.2.2 Wrapping offline jet reconstruction code
24	4.2.3 Reconstruction and calibration of calorimeter clusters
25	4.2.4 Jet calibration
26	4.2.5 The hypothesis algorithm
27	5 Jet trigger monitoring infrastructure
28	5.1 Online monitoring
29	5.2 Offline monitoring
30	6 Commissioning and early data taking
31	7 Conclusion

CONF note

- Jet trigger ``standalone'' performance and properties
 - Number of topoclusters per event
 - Timing plots with partial scan
 - p_T spectra for all jets
 - Trigger rates for each chain
 - Rate vs. N_{pV} or ρ , with and without subtraction
 - Jet p_T 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
 - p_T 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