Root's Labyrinth

Alexandru Bacanu Advisors: Danilo Piparo Piergiulio Lenzi

Maze # 1: Jet Algorithms

- Given a large chunk of MC data, with data from different jet algorithms, must analyze it.
- kt12GenJetsWithArea, kt2GenJetsWithArea, kt6GenJetsWithArea, kt8GenJetsWithArea
- There are several variables that we are interested in: Jet Area, Transverse Momentum and rho: Jet Area/Transverse Momentum

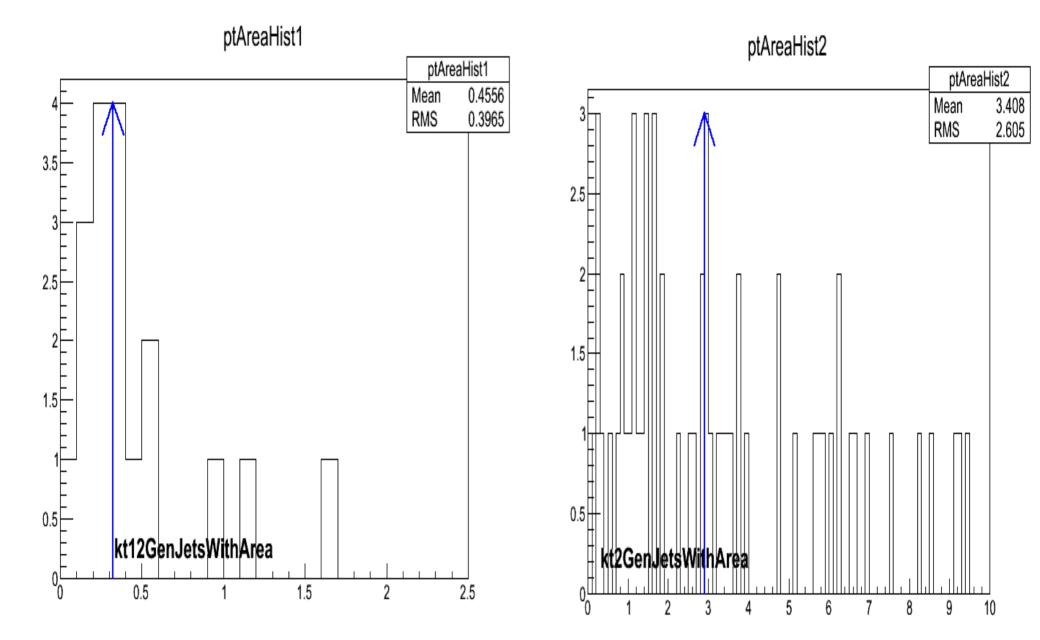
Maze #2: Events

 For each jet algorithm, for each event, I needed to plot rho (to make sure the data makes sense), and then calculate its median. The most important plot is the one of the median of rho per event.

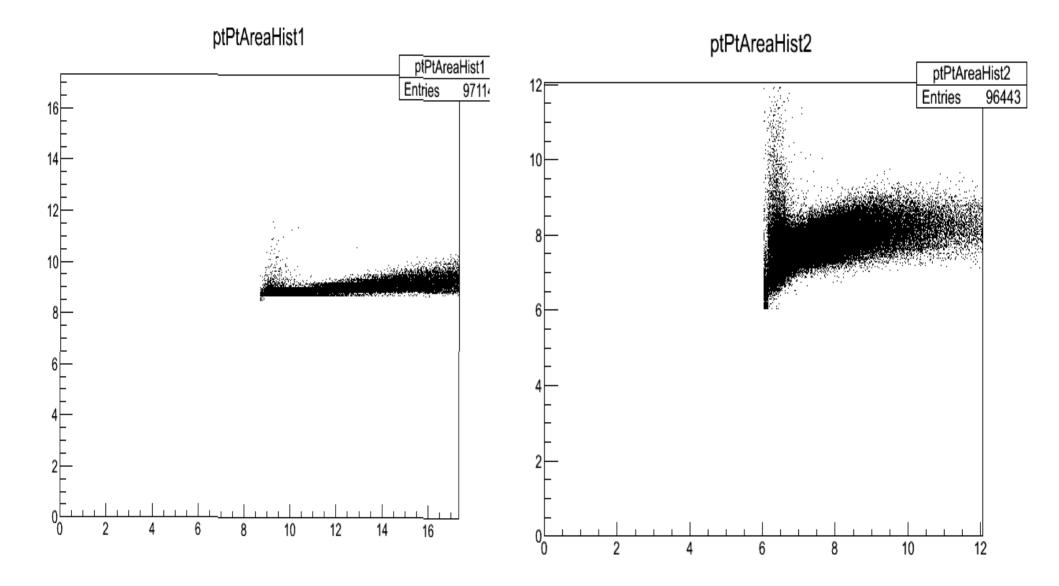
Maze #3

- Writing a program that reads multiple ROOT files, and merges the histograms together.
- Next steps: Pile up, multiple events at once.

Important Plots



Important Plots Continued



Escape From the Maze

Maere have I been?

Zermatt

Las Jura

Barcelona

Where will

he (this wee

Pan's Labyrinth - Copyright @ 2006 Picturehouse/Warner Bros. Picture