Progress since last update

- Problem sheets for Relativistic Quantum Mechanics are up to date and my first two problem sheets has been handed in.

- Awaiting Peter's suggestions for which chapters to read on "Quark-Gluon Plasma" to begin our tutorials.

- Attended Graduate school Induction day and plan to attend a handful of courses including project management, presentation skills and viva preparation.

- Working on distinguishing between tracks that are reconstructed and all possible reconstruct-able tracks in my practice code.

- Preparing for my first visit to CERN, a copy of my passport needs to be faxed. I will be leaving on 14th Nov for ALICE week.

31/10/2011

Primary track selection in MC

Using IsPhyscialPrimary() which tests if a particle is a physical primary i.e. particles produced in the collision including products of strong and electromagnetic decay and excluding feed-down from weak decays of strange particles.

This way final state long-lived particles coming from the interaction vertex can be selected and remove everything else.
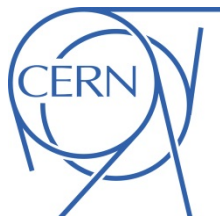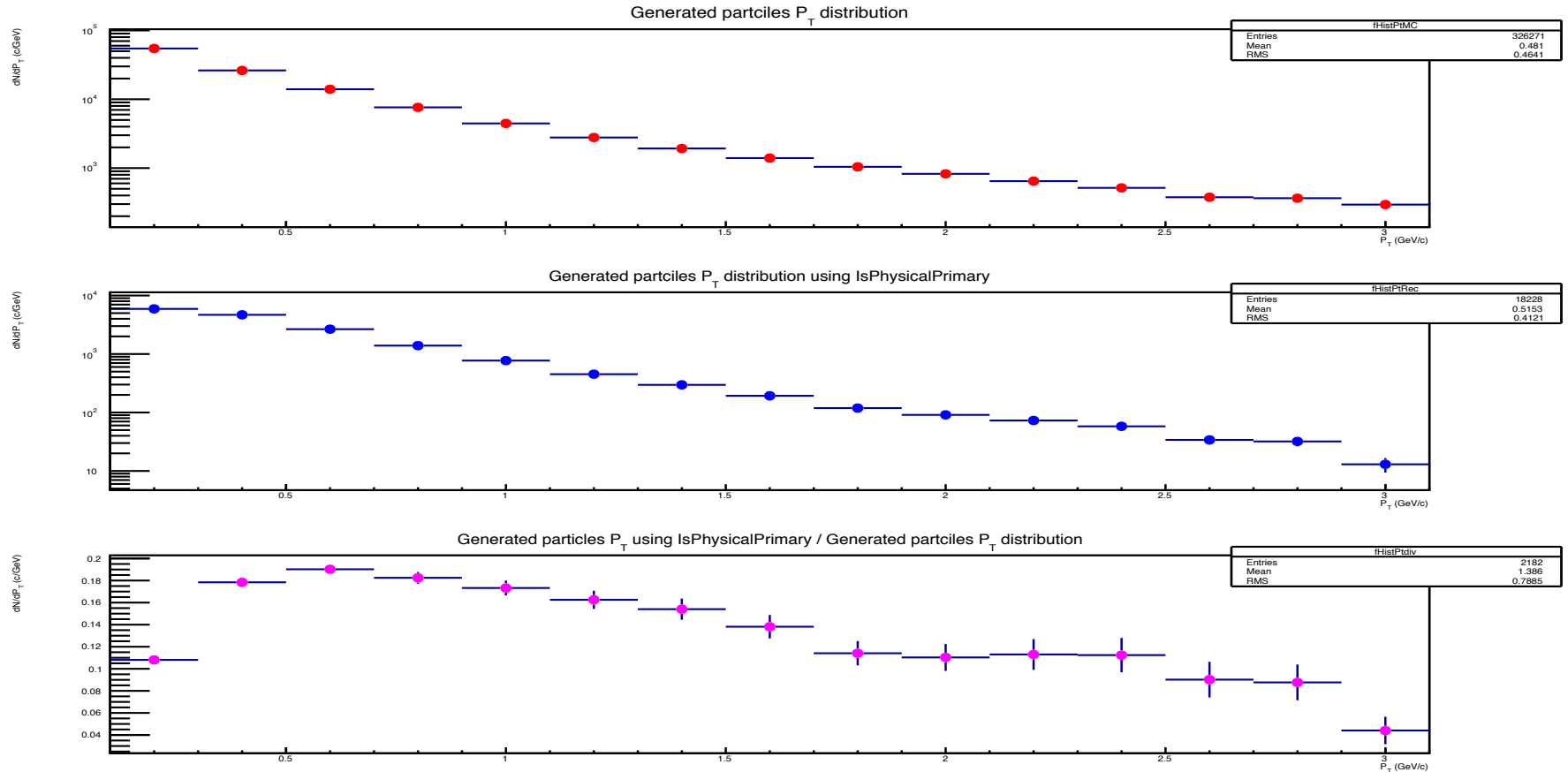
Cuts

Cuts in the example I am using use the classes –

- AliCFTrackkinecuts – which cuts on particle's kinematic quantities.

- fQualitycuts – which cut on track quantities.

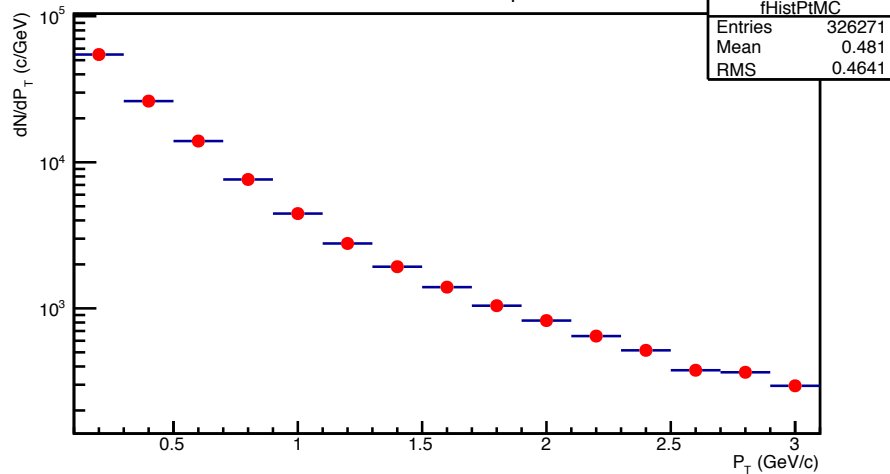Still a little un-sure about what makes a "good" particle kinematic quantity or track.

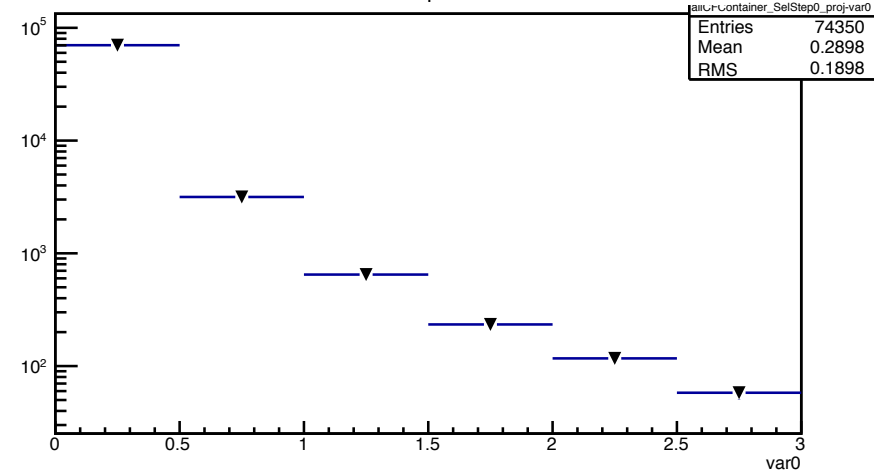# Primary track selection in MC comparison to all reconstruct-able MC

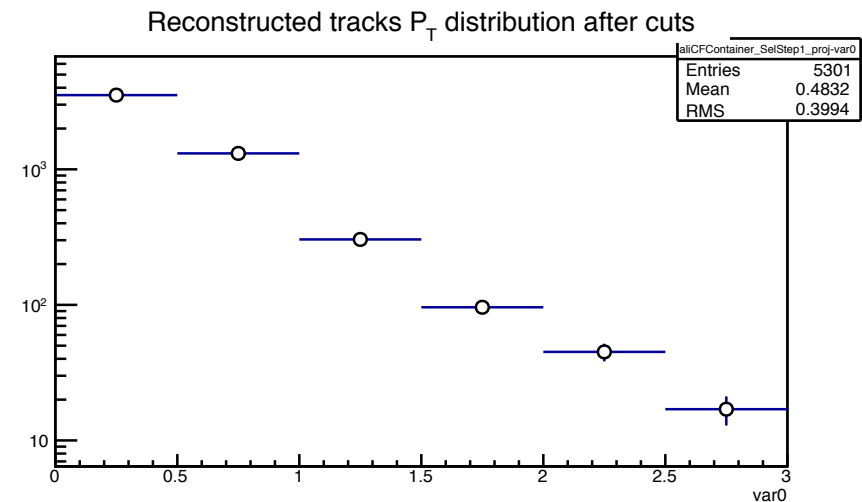# P$_t$ comparison between un-cut and cut generated particles.

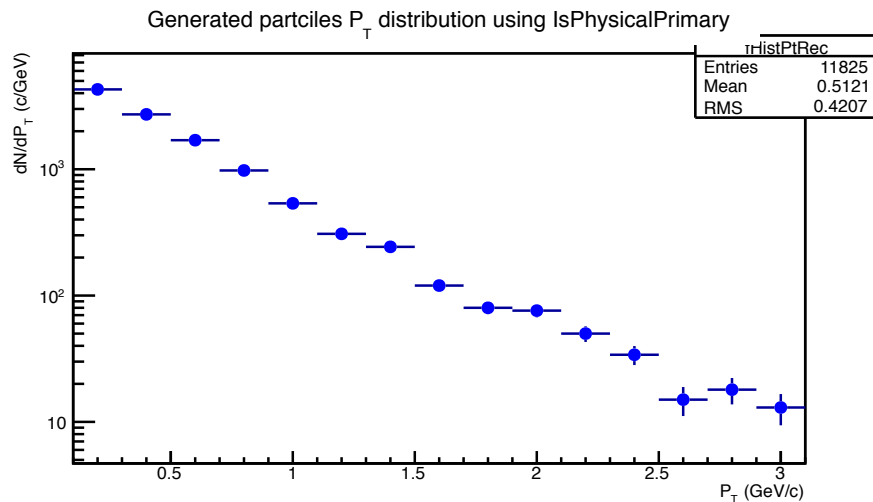### Generated partciles P$_T$ distribution

fHistPtMC	
Entries	326271
Mean	0.481
RMS	0.4641

Generated partciles P$_T$ distribution after cuts

aliCFContainer_SelStep0_proj-var0	
Entries	74350
Mean	0.2898
RMS	0.1898

Generated partciles P$_T$ distribution using IsPhysicalPrimary

fHistPtRec	
Entries	11825
Mean	0.5121
RMS	0.4207

Reconstructed tracks P$_T$ distribution after cuts

aliCFContainer_SelStep1_proj-var0	
Entries	5301
Mean	0.4832
RMS	0.3994

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P$_t$ comparison between un-cut and cut reconstructed tracks.

Generated partciles P$_T$ distribution using IsPhysicalPrimary

τHistPtRec	
Entries	11825
Mean	0.5121
RMS	0.4207

Reconstructed tracks P$_T$ distribution after cuts

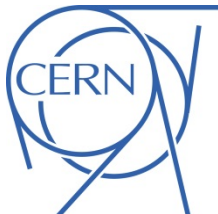| aliCFContainer_SelStep1_proj-var0	
Entries	5301
Mean	0.4832
RMS	0.3994

Plans for this week

- Complete Particle problem sheets for this week as always

- Finish paperwork in preparation for CERN visit.

- Work on calculating efficiency for my example.

- Lectures scheduled as normal. Note that this week will be the last lectures for introduction into particle physics and relativistic quantum mechanics. Next week I will begin lectures on Group theory and QED.

- C++ courses will also start new week and be on every Monday for the whole day, thus I am not sure how this will effect weekly meetings.

31/10/2011

Thank you

Any questions?

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