Missing Et trigger at low luminosity

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New features

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Groups instead of some packages

- **JetMetParticles**
  - JetMetParticles, JetMetParticleInput, JetMetParticleCalibrators, JetMetParticleBuilders
- **MetBuilders (uses JetMetParticles)**
  - MetObjects, MetInput, MetCalibrators, MetBuilders

Better separation of code, more OO (inheritance)

Easy to use out of JetMetAnalysis

Write access to particles and jets (matching, calibration)

class JetMetUserAnalysis : public JetMetGroupAnalysis

- **simple but uses the whole stuff because of inheritance**
- **event selection**

JetMetParticles

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class JetMetRawHepParticle : public

- RawParticle, JetMetRawVertex, JetMetJetId

class JetMetJet : public

- ConcreteJet, JetMetJetId, JetMetJetContent, JetMetJetCorrection

class JetMetEcalPlusHcalTower : public

- EcalPlusHcalTower, JetMetJetId

Jet finding is done on these objects

- no need for constituent finding
- JetMetId : name, pointer, jet number of matched or container jet
  - filled in JetMetCollection
- JetMetJetCorrection : calibrated energies
  - filled during particle building
- JetMetJetContent : EM energy for the moment
  - filled during particle building

MetBuilders

Basically the same classes as a year ago

- object, input, calibration and building is in separated packages
- met calibrator classes read the jet calibrator classes
- JetMetSetup defines the jet and met units in the MetBuilders library
- easy RecItr in and out of JetMetAnalysis
- the user should only know the name of the RecUnit
  - e.g. RecItr<JetMetJet> myJet(event,"JetMetConeARecJetX");

Jet unit examples

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"ConeARecJet"

- ConcreteJet from EcalPlusHcalTower (cone = 0.5)

"JetMetConeARecJet"

- ConcreteJet from JetMetEcalPlusHcalTower (cone = 0.5)

"ConeARecJetX"

- JetMetJet from EcalPlusHcalTower (cone = 0.5)

"JetMetConeARecJetX" use this one

- JetMetJet from JetMetEcalPlusHcalTower (cone = 0.5)

. . .

"JetMetConeAGenJetX" use this one

- JetMetJet from JetMetRawHepParticle (cone = 0.5)

Met unit examples

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MetUnitName = "Met" + C + JetUnitName

- **C for calibration**
  - "N" – no pile–up correction
  - "L" – low luminosity correction
  - "H" – high luminosity correction

"MetLConeARecJet"

- **ConcreteJet from EcalPlusHcalTower (cone = 0.5)**
- **low luminosity correction**
- **10 instances – 5 noncalibrated (A), 5 calibrated(B)**
  - input cases : 1:jet, 2:injet_constituent, 3:outofjet_c, 4:2+3, 5:1+3
  - A4 is the ususal uncorrected missing Et (= A5)
  - B5 is the "type 2" corrected missing Et