

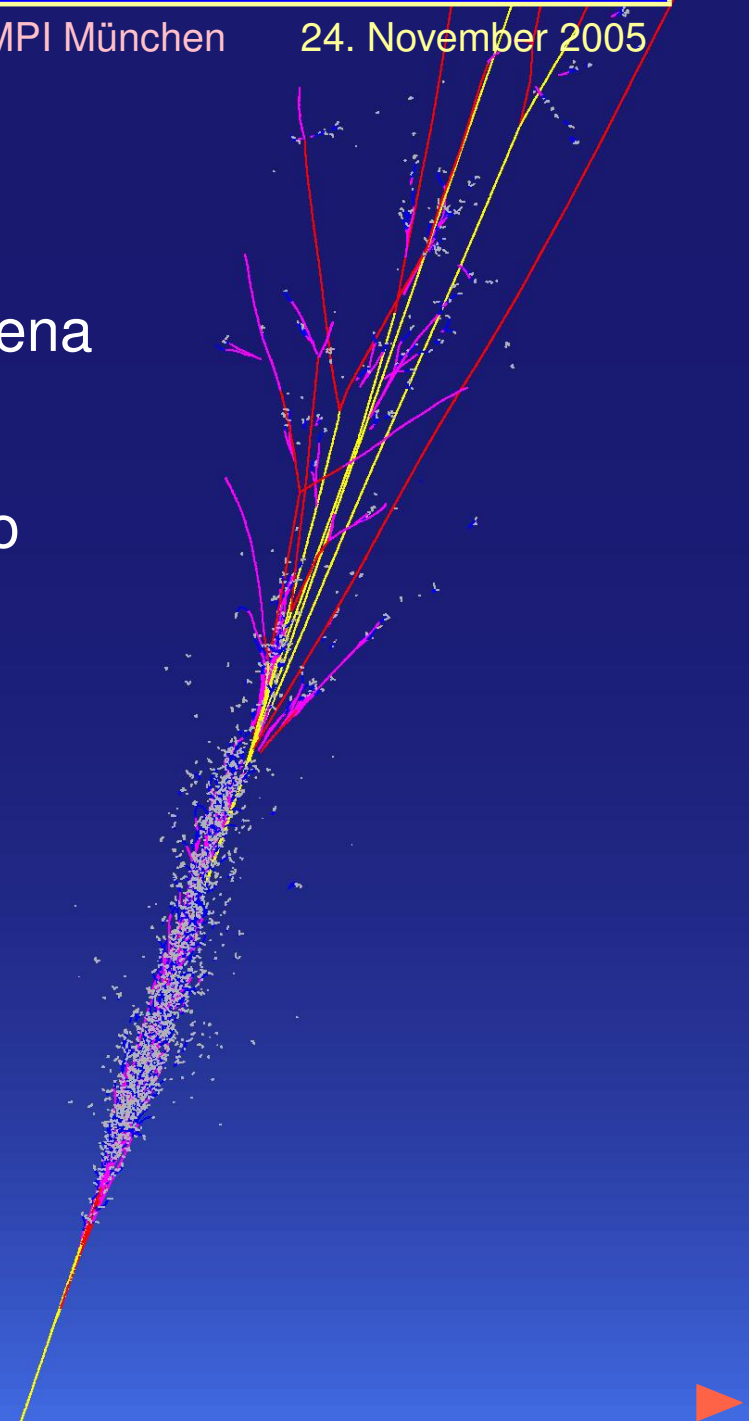
# Local Hadronic Calibration Plans at MPI

Bratislava/Kosice/MPI Calorimeter Video Meeting

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- ▶ Status of Local Hadronic Calibration in athena  
11.0.X
- ▶ Application of Local Hadronic Calibration to  
postrome dijet samples (using  $K_t$ Jet)
- ▶ Dead Material Corrections



- ▶ Classification (the lookup table method) and weighting has been implemented in athena for 11.0.0
- ▶ In order to use the classification **and** calibration simply include the following line in your jobO:
- ▶ In order to just use the classification and **not** do any calibration just add the following line after the above include:

```
include ("CaloClusterCorrection/CaloTopoLocalCalib_jobOptions.py")
```

```
CaloTopoClusterMaker.LocalCalib.LocalCalibToolNames = [ "" ]
```

- ▶ To use calibration and still get the geometrical weights only for the **CaloCalibHitRec** package use the following lines:

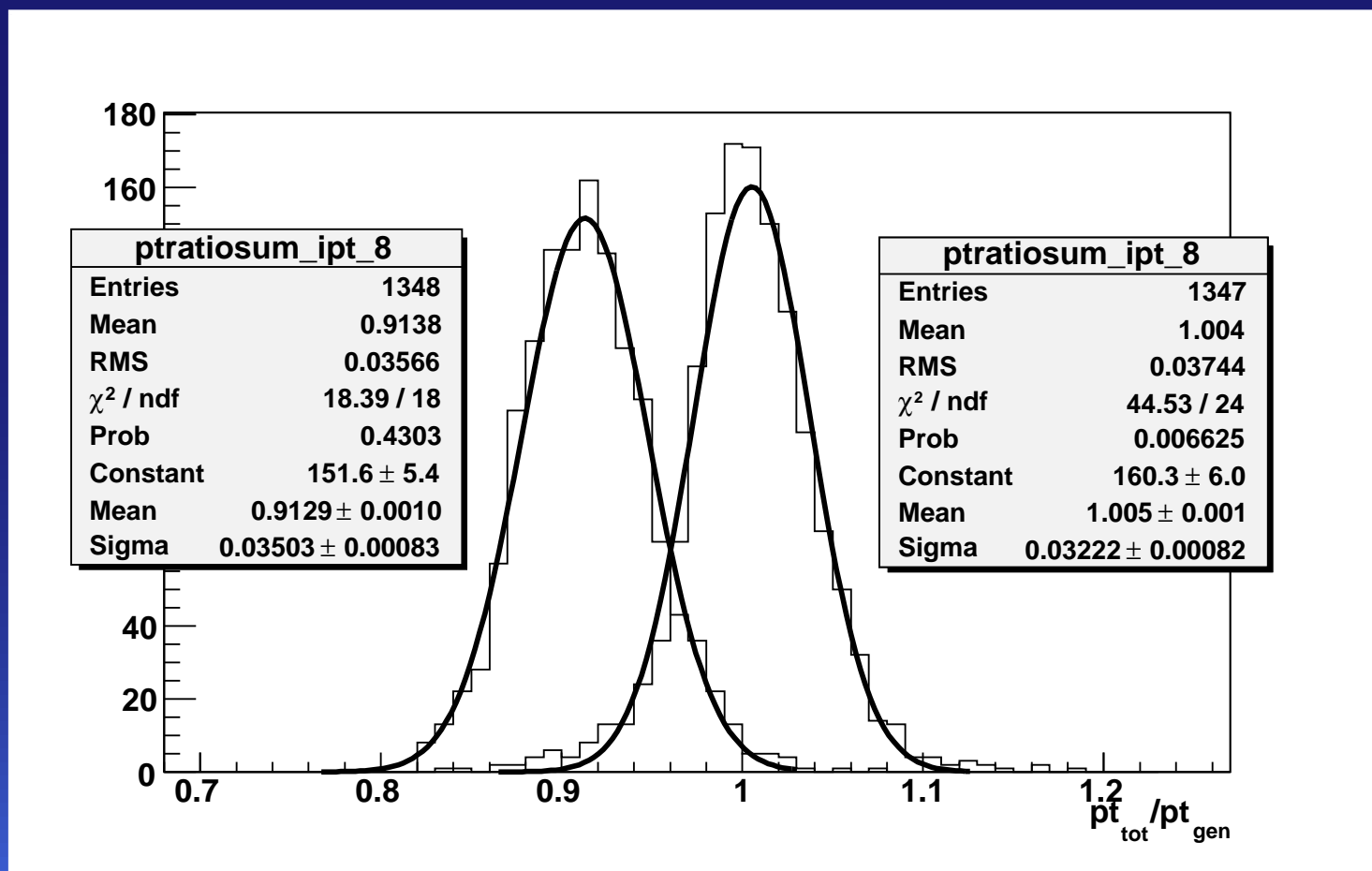
```
CaloTopoClusterMaker.KeepEachCorrection = TRUE
```

```
CBNT_CalibrationInfo.ClusterContainer = "CaloTopoCluster-preLocalCalib"
```

```
CBNT_CalibrationInfoDM.ClusterContainer = "CaloTopoCluster-preLocalCalib"
```

# Application of Local Hadronic Calibration to dijets

- ▶ First look at results from classification/calibration on the dijet samples made by Pavol (J4)
- ▶ I use `KtJet` with the  $\Delta R < 0.7$  distance requirement on calibrated topo clusters
- ▶ In J4 this gives around 30 jets per event
- ▶ compare the reconstructed energy with the calibration hit energy for calibrated and non-calibrated clusters
- ▶ example plot shows jets with  $200 \text{ GeV} < p_{\perp} < 240 \text{ GeV}$



# Dead Material Corrections and other Plans

- ▶ Alexei Maslennikov and Guennadi Pospelov started to work on Dead Material Corrections from Calibration Hits
  - aim is to include dead material corrections in the local hadronic calibration
  - first step will be to establish correlation between dead material assigned to a cluster inside a given region with the reconstructed energy in adjacent samplings
- ▶ Preparation for DC3
  - the new way of running simulation in a python driven mode required lots of changes to the way calibration hits are simulated
  - we try to get calibration hits working in 11.0.X such that at least some of the DC3 simulations can be done with them
  - see presentation by Joe Boudreau in yesterdays Calorimeter Performance meeting
  - still crashes and missing stuff from the endcaps
- ▶ Continue `KtJet` analysis
  - extend to other samples
  - try other cut-off parameters/schemes

