

Kalman for Forward Tracks

Example: macro/pid/run_reco_sttcombi.C

```
PndFtsTrackerIdeal* trackFts = new PndFtsTrackerIdeal();
trackFts->SetRelativeMomentumSmearing(0.05);
trackFts->SetVertexSmearing(0.05, 0.05, 0.05);
trackFts->SetTrackingEfficiency(1.);
trackFts->SetTrackOutput("FtsIdealTrack");
fRun->AddTask(trackFts);
```

**Ideal
Tracking**

```
PndRecoKalmanTask* recoKalmanFwd = new PndRecoKalmanTask();
recoKalmanFwd->SetTrackInBranchName("FtsIdealTrack");
recoKalmanFwd->SetTrackOutBranchName("FtsIdealGenTrack");
recoKalmanFwd->SetBusyCut(50); // CHECK to be tuned
fRun->AddTask(recoKalmanFwd);
```

Kalman

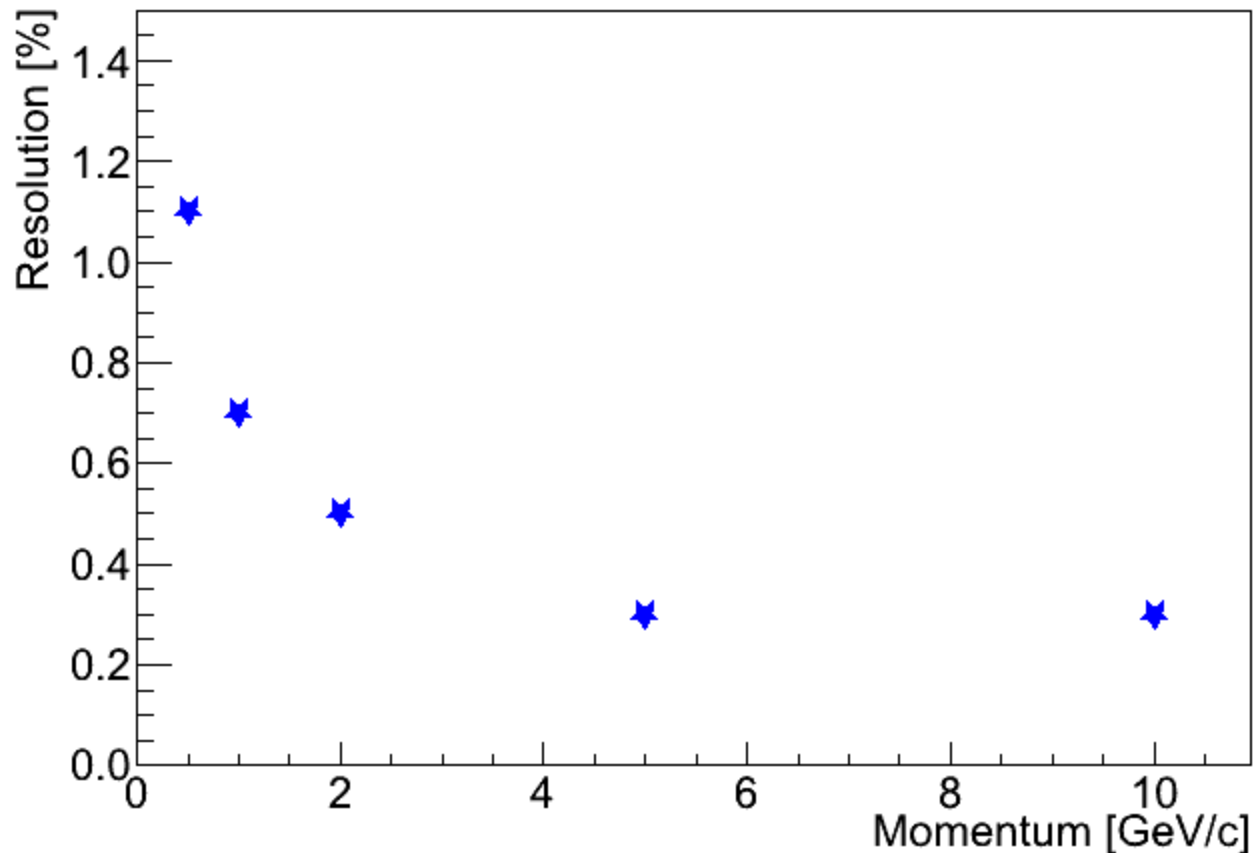
```
PndMCTrackAssociator* trackMC3 = new PndMCTrackAssociator();
trackMC3->SetTrackInBranchName("FtsIdealGenTrack");
trackMC3->SetTrackOutBranchName("FtsIdealGenTrackID");
fRun->AddTask(trackMC3);
```

**MonteCarlo
Association**

```
PndFtsTrackerIdeal* trackFts = new PndFtsTrackerIdeal();
trackFts->SetRelativeMomentumSmearing(0.05);
trackFts->SetVertexSmearing(0.05, 0.05, 0.05);
trackFts->SetTrackingEfficiency(1.);
trackFts->SetTrackOutput("FtsIdealTrack");
fRun->AddTask(trackFts);
```

Ideal Tracking
Momentum Smearing 5%

Graph



2000 Muons
fRun->SetBeamMom(15);
↑
dipole field scaling
in simulation macro

Muons @ 2 GeV/c

at different dipole field strength

