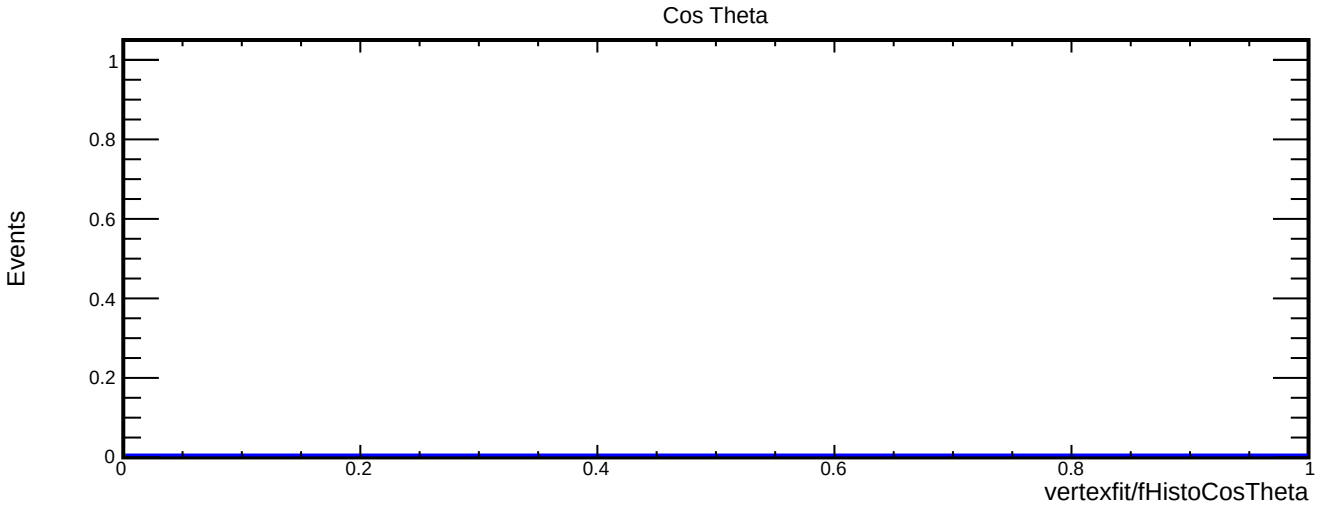
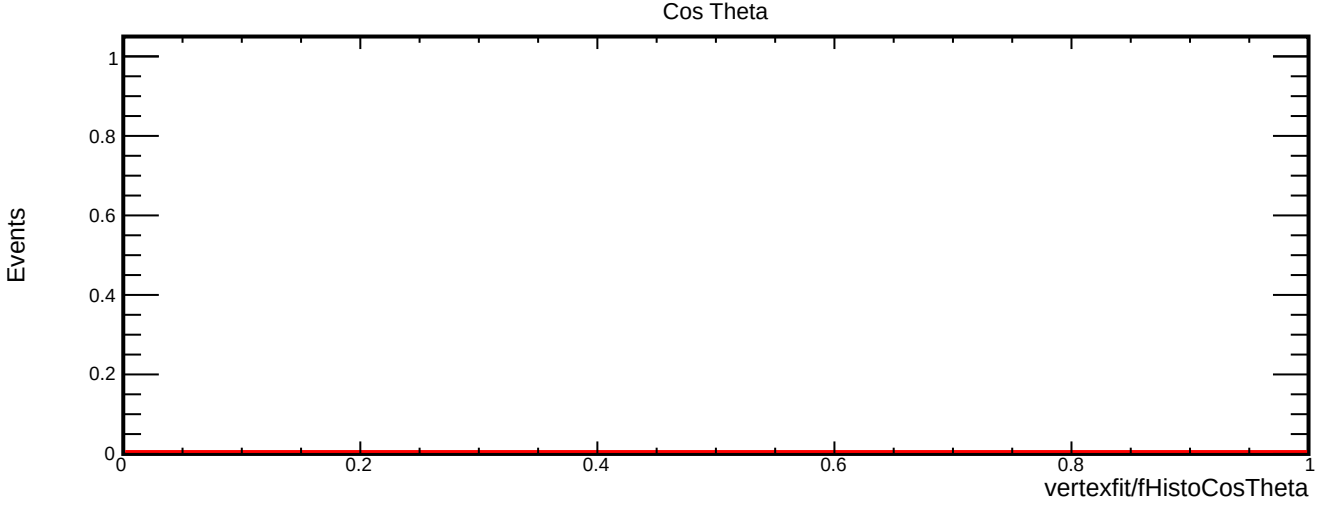
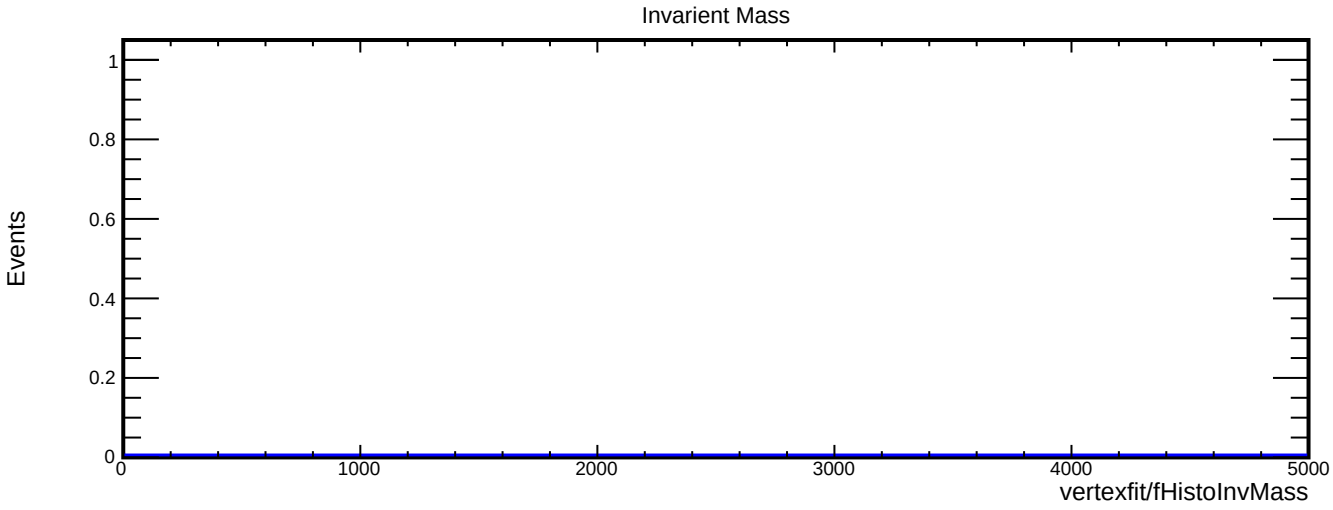
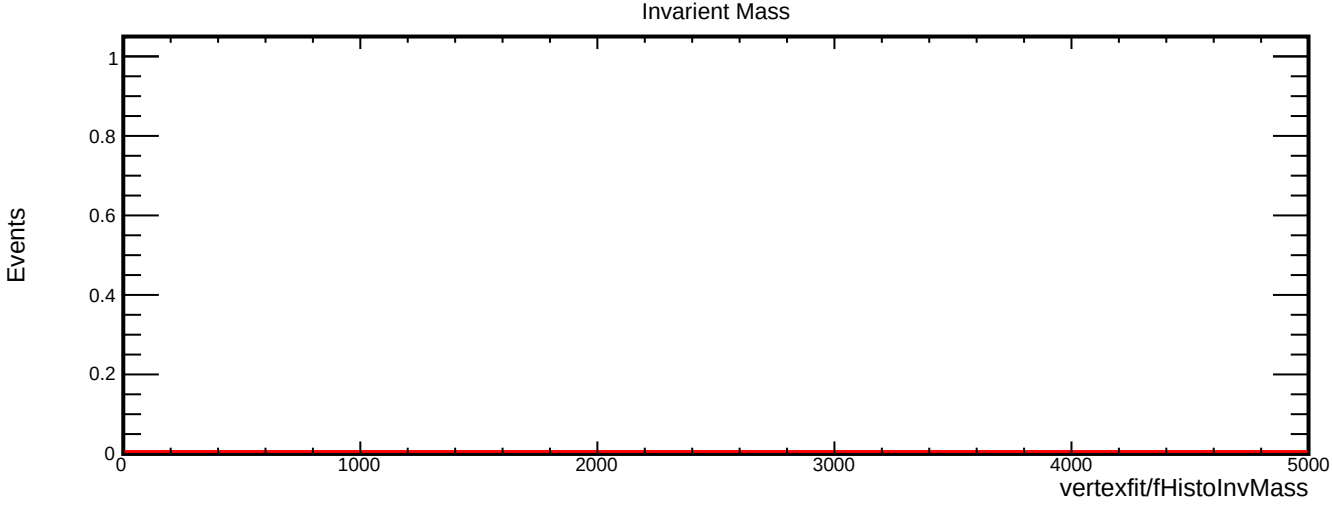
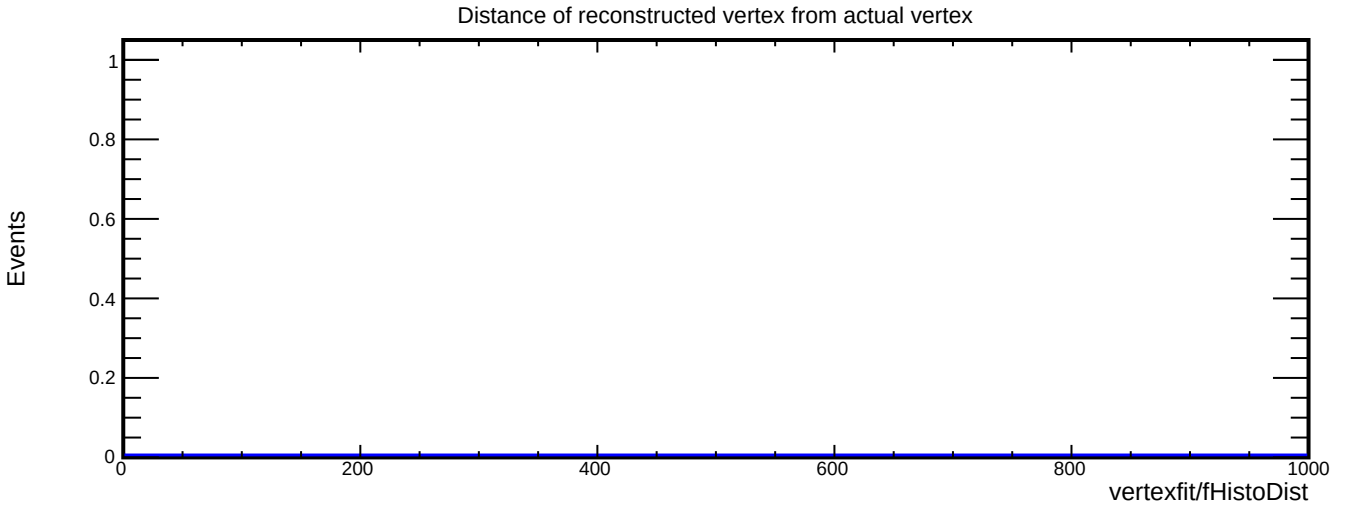
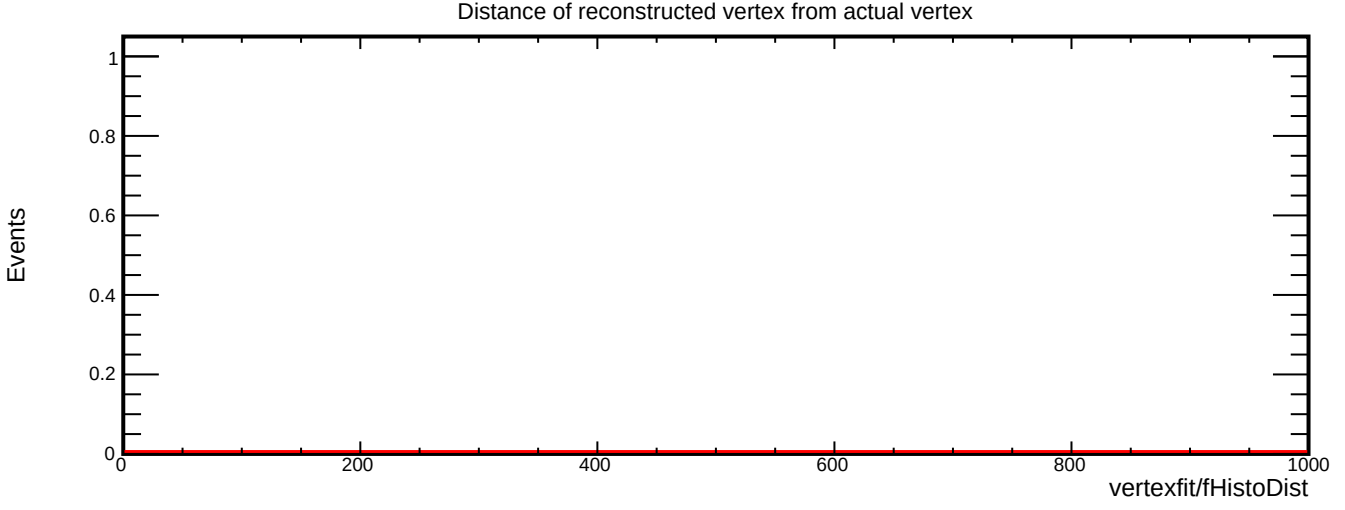

Cos Theta
Events
1
0.8
0.6
0.4
0.2
0
0
0.2
0.4
0.6
0.8
1
vertexfit/fHistoCosTheta

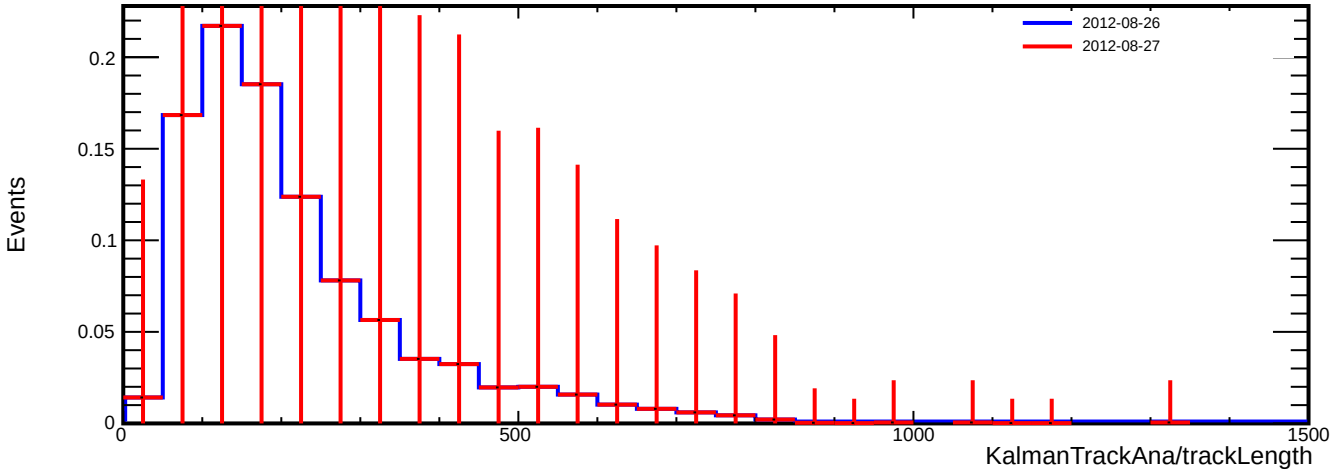

Cos Theta
Events
1
0.8
0.6
0.4
0.2
0
0
0.2
0.4
0.6
0.8
1
vertexfit/fHistoCosTheta

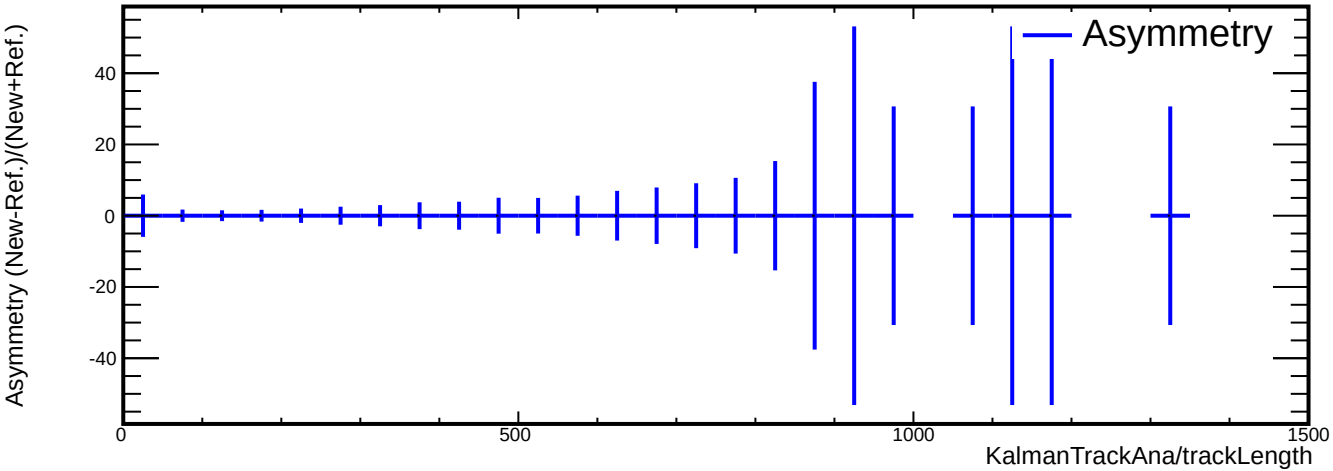

Invarient Mass
Events
1
0.8
0.6
0.4
0.2
0
0
1000
2000
3000
4000
5000
vertexfit/fHistoInvMass

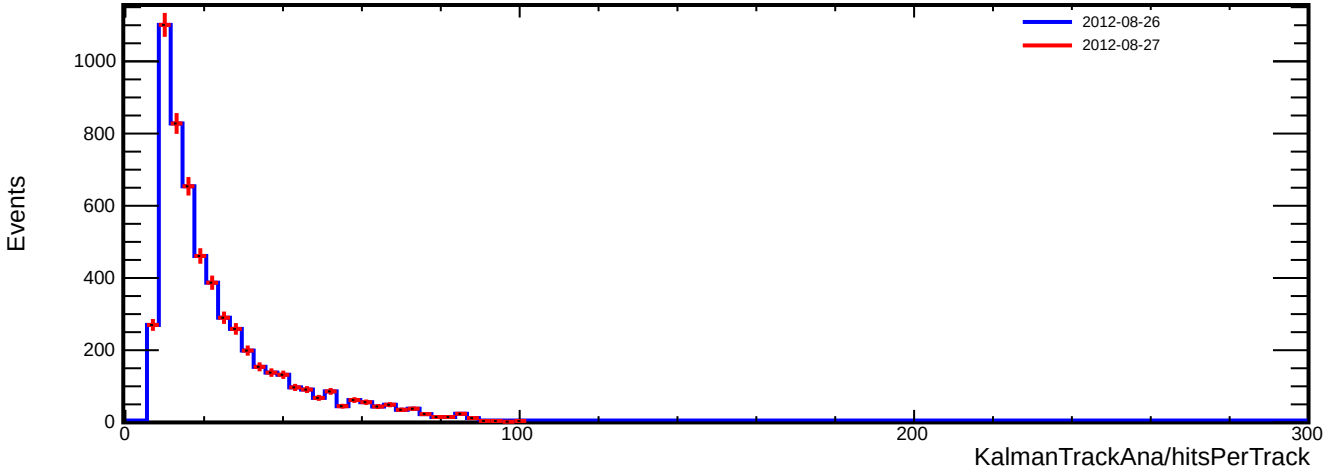

Invarient Mass
Events
1
0.8
0.6
0.4
0.2
0
0
1000
2000
3000
4000
5000
vertexfit/fHistoInvMass

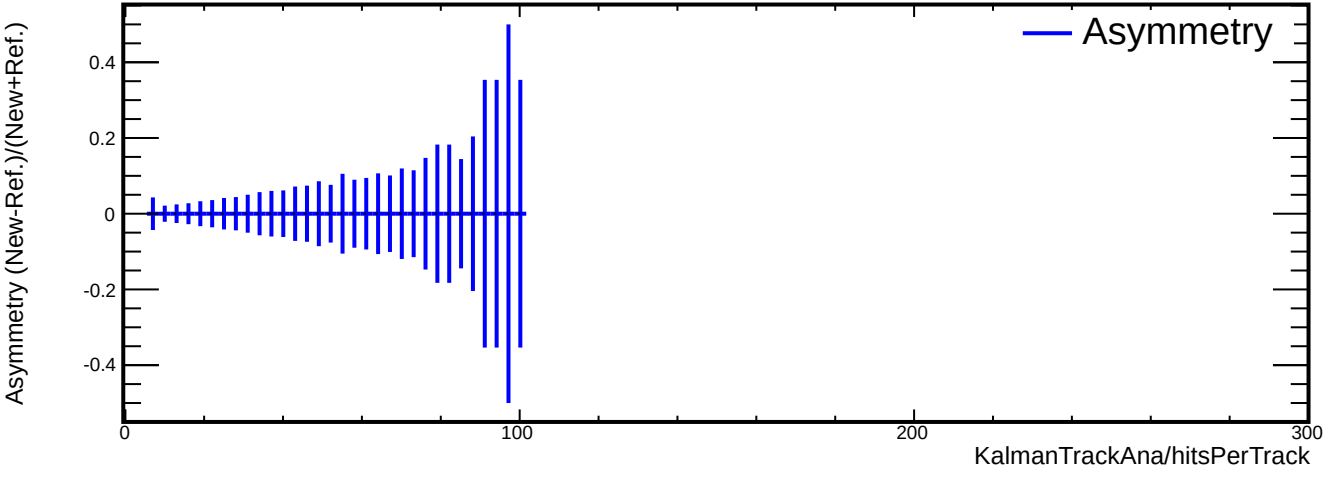

Distance of reconstructed vertex from actual vertex
Events
1
0.8
0.6
0.4
0.2
0
0
200
400
600
800
1000
vertexfit/fHistoDist

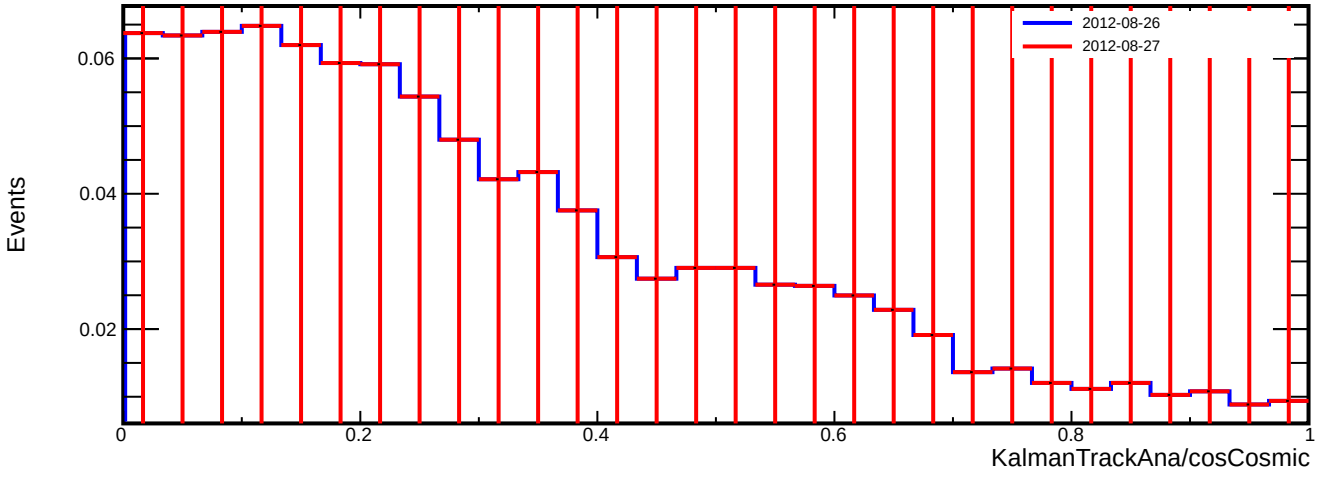

Distance of reconstructed vertex from actual vertex
Events
1
0.8
0.6
0.4
0.2
0
0
200
400
600
800
1000
vertexfit/fHistoDist

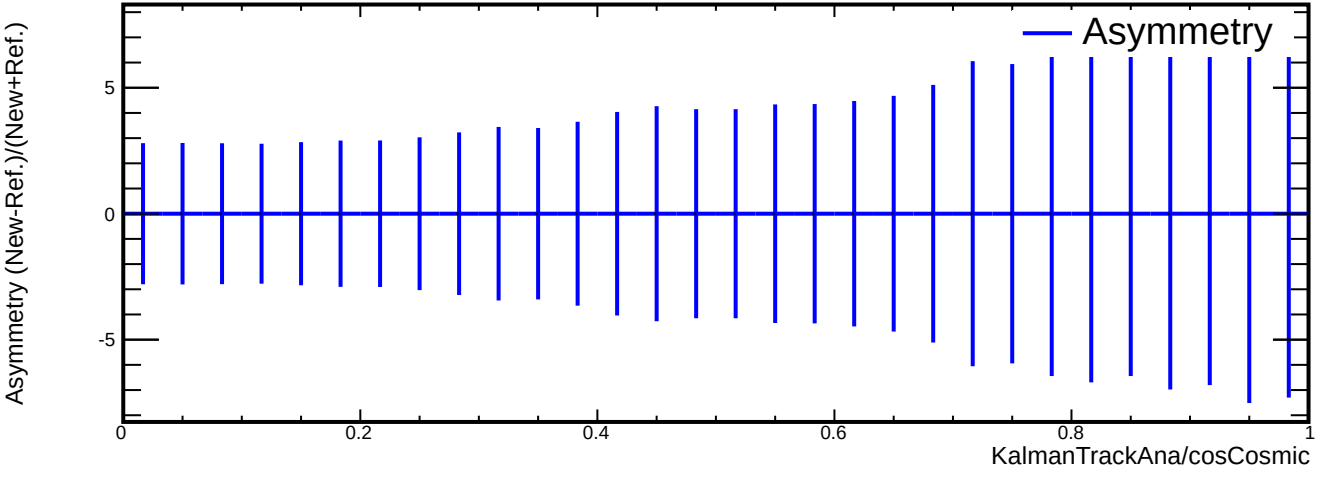

2012-08-26
2012-08-27
Events
0.2
0.15
0.1
0.05
0
0
500
1000
1500
KalmanTrackAna/trackLength

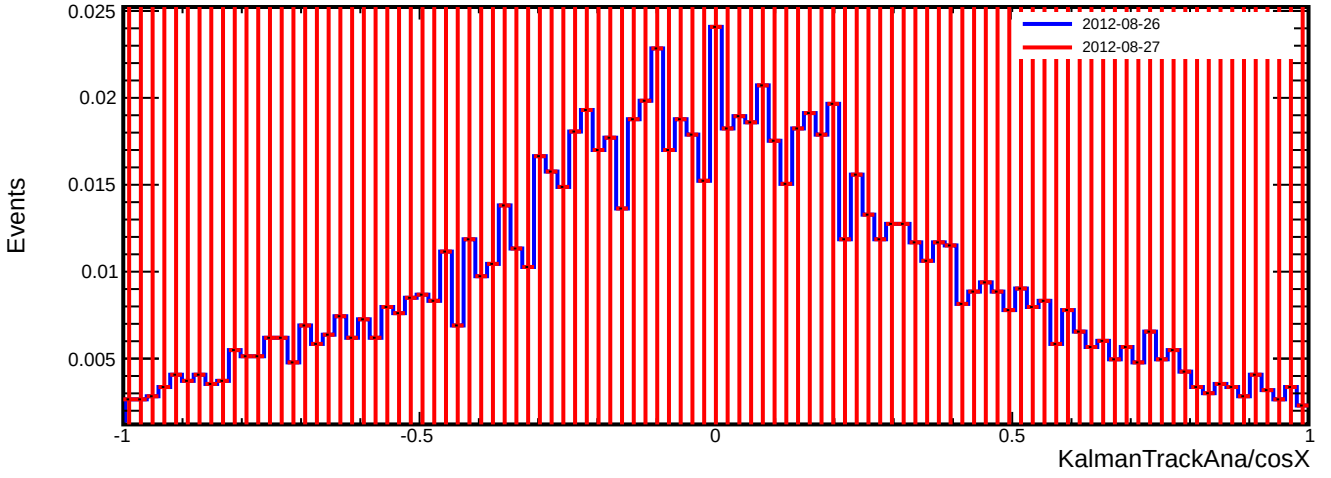

Asymmetry
Asymmetry (New-Ref.)/(New+Ref.)
40
20
0
-20
-40
0
500
1000
1500
KalmanTrackAna/trackLength

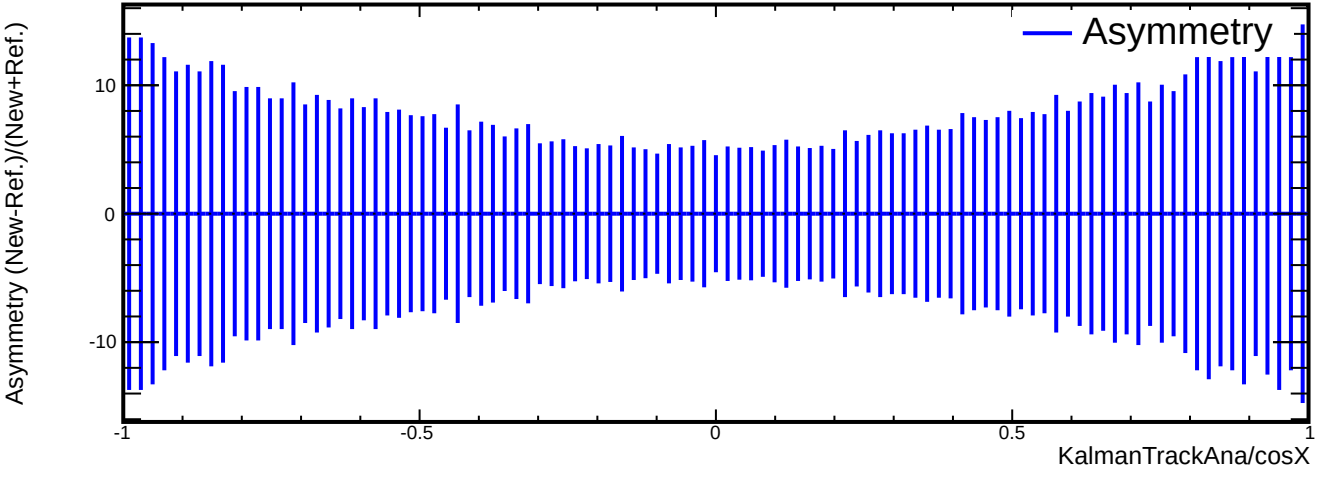

2012-08-26
2012-08-27
Events
1000
800
600
400
200
0
0
100
200
300
KalmanTrackAna/hitsPerTrack

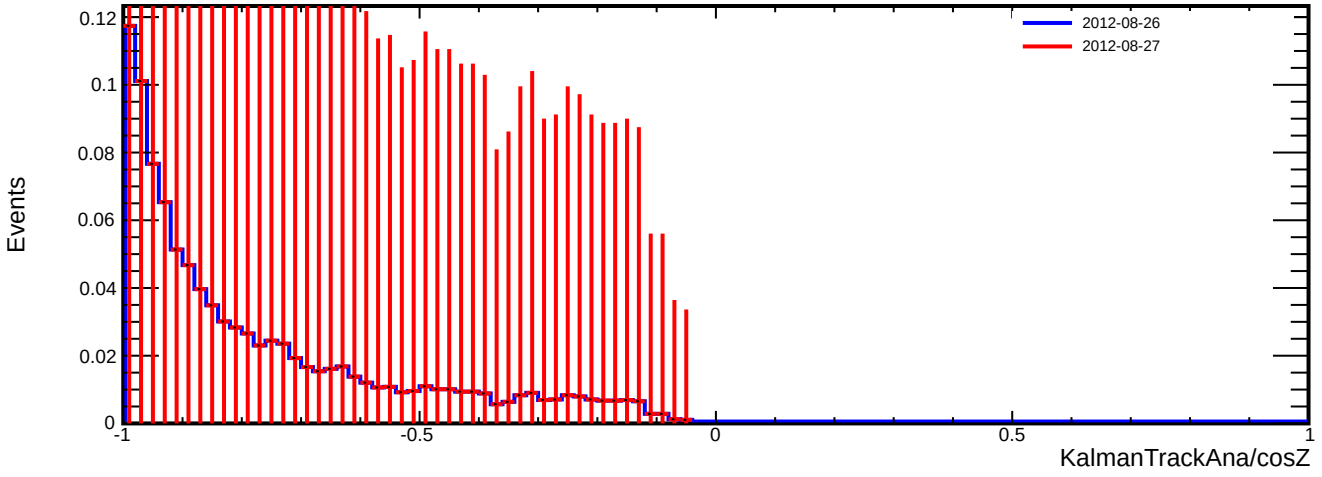

Asymmetry
Asymmetry (New-Ref.)/(New+Ref.)
0.4
0.2
0
-0.2
-0.4
0
100
200
300
KalmanTrackAna/hitsPerTrack

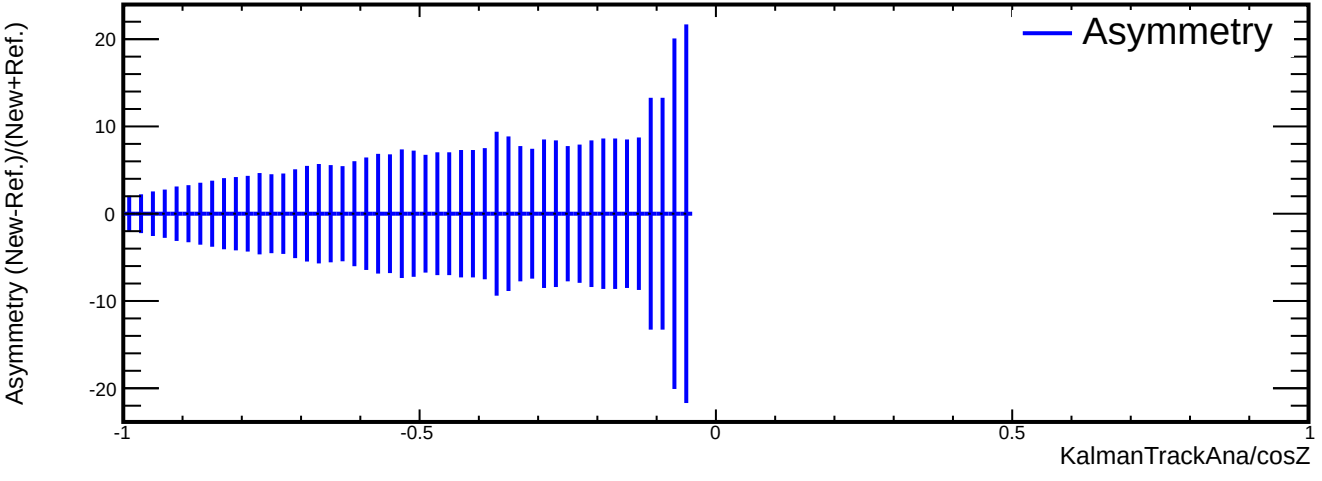

2012-08-26
2012-08-27
Events
0.06
0.04
0.02
0
0.2
0.4
0.6
0.8
1
KalmanTrackAna/cosCosmic

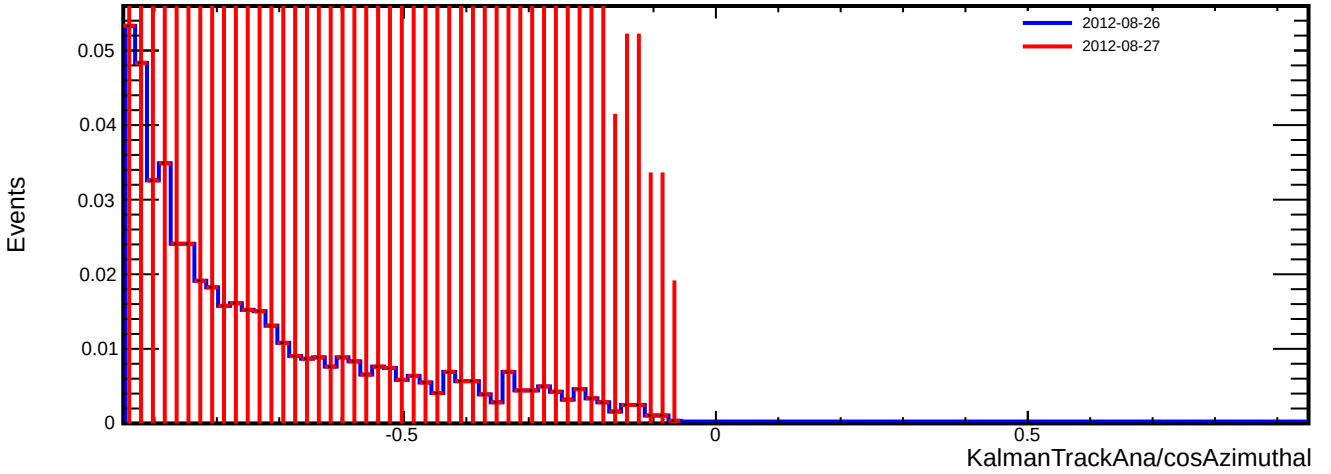

Asymmetry
Asymmetry (New-Ref.)/(New+Ref.)
5
0
-5
0
0.2
0.4
0.6
0.8
1
KalmanTrackAna/cosCosmic

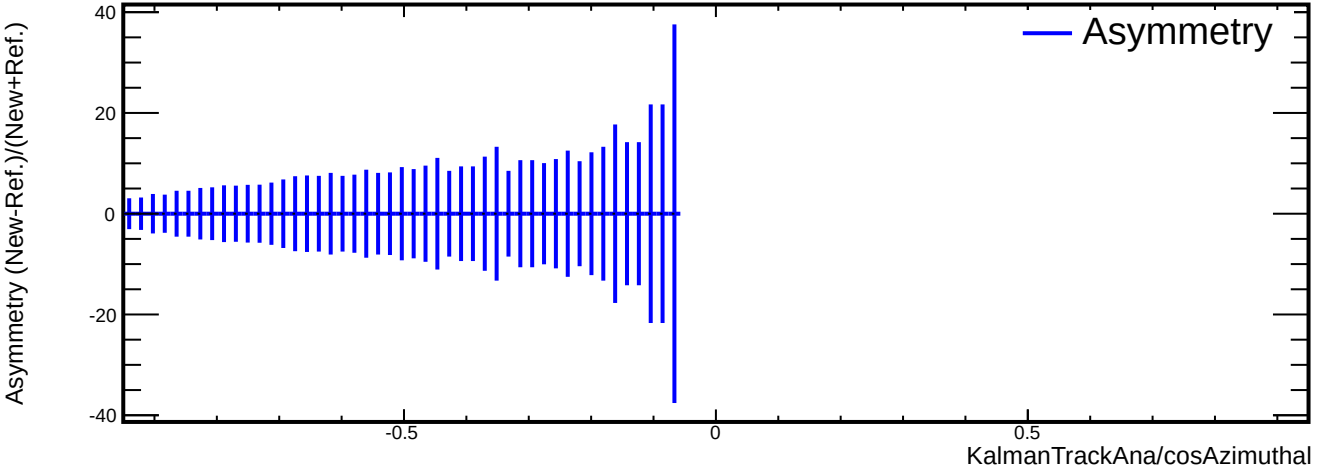

2012-08-26
2012-08-27
Events
0.025
0.02
0.015
0.01
0.005
-1
-0.5
0
0.5
1
KalmanTrackAna/cosX

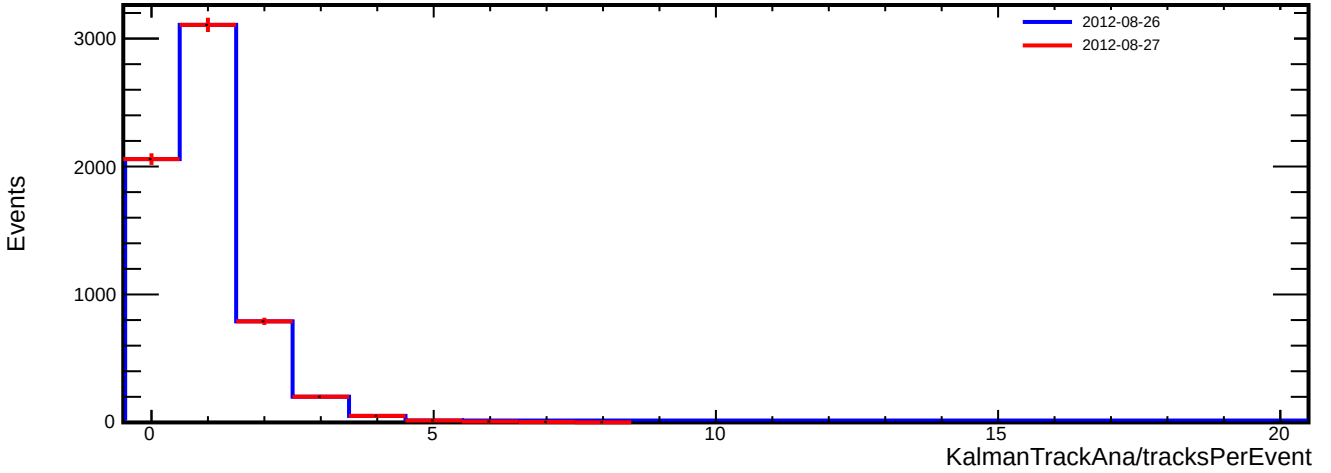

Asymmetry
Asymmetry (New-Ref.)/(New+Ref.)
10
0
-10
-1
-0.5
0
0.5
1
KalmanTrackAna/cosX

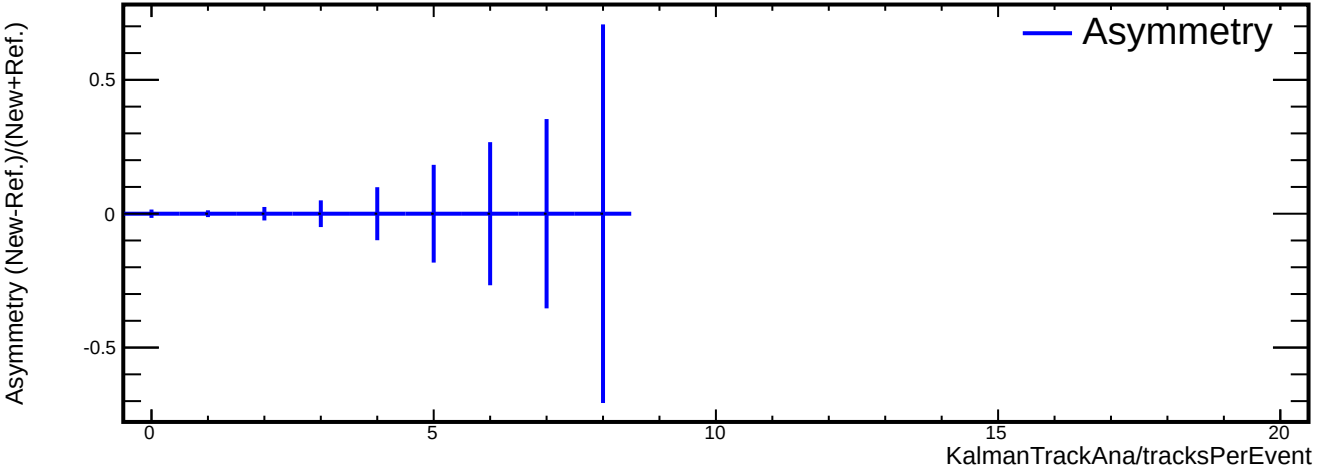

Events
0.12
0.1
0.08
0.06
0.04
0.02
0
-1
-0.5
0
0.5
1
KalmanTrackAna/cosZ
2012-08-26
2012-08-27

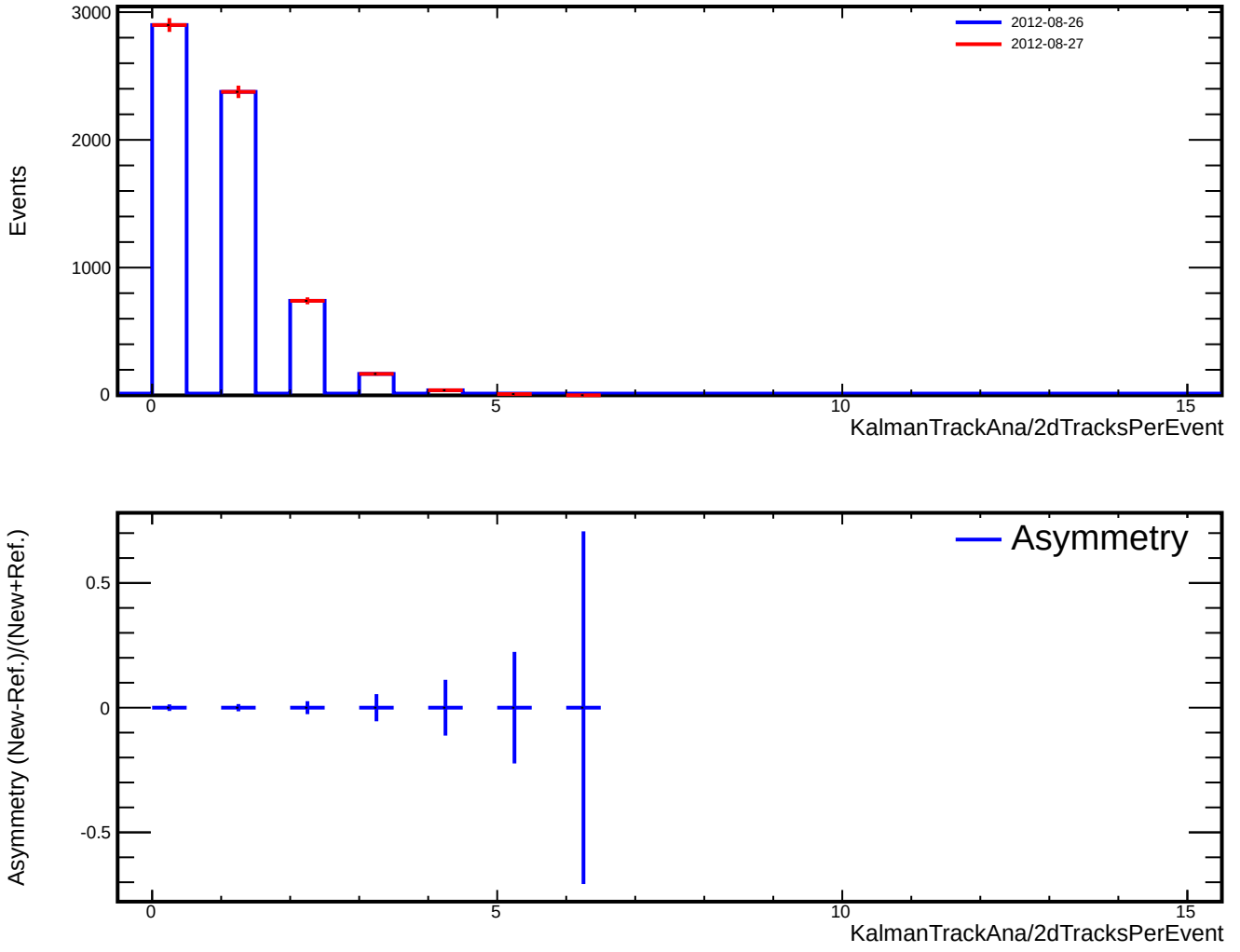

Asymmetry (New-Ref.)/(New+Ref.)
20
10
0
-10
-20
-1
-0.5
0
0.5
1
KalmanTrackAna/cosZ
Asymmetry

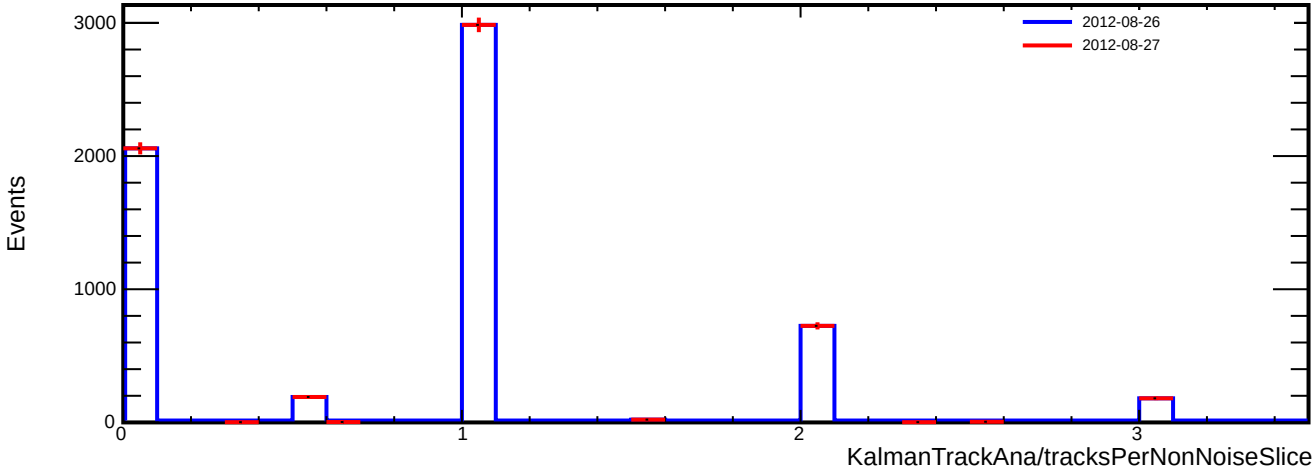

2012-08-26
2012-08-27
Events
0.05
0.04
0.03
0.02
0.01
0
-0.5
0
0.5
KalmanTrackAna/cosAzimuthal

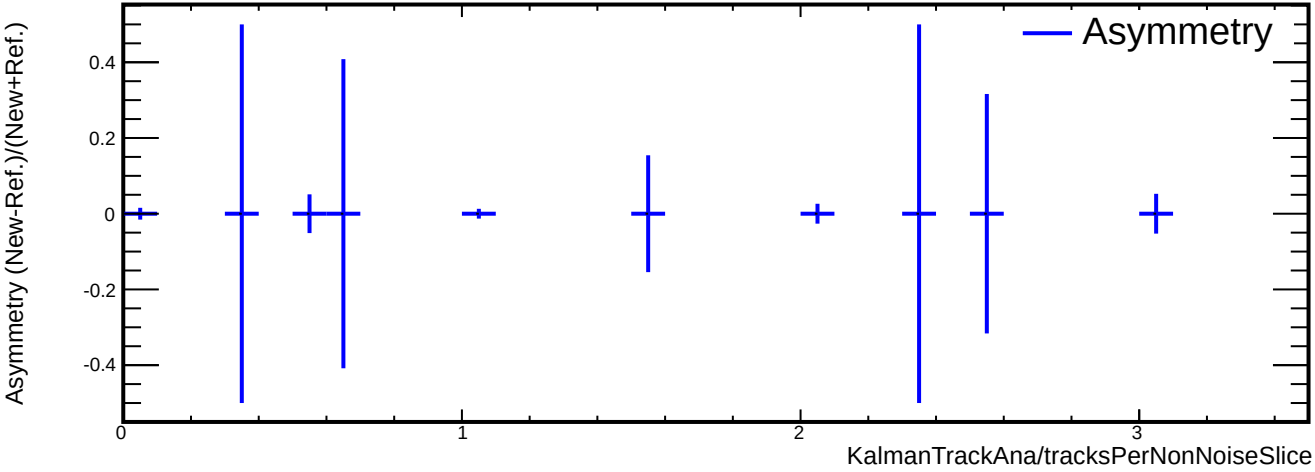

Asymmetry
Asymmetry (New-Ref.)/(New+Ref.)
40
20
0
-20
-40
-0.5
0
0.5
KalmanTrackAna/cosAzimuthal

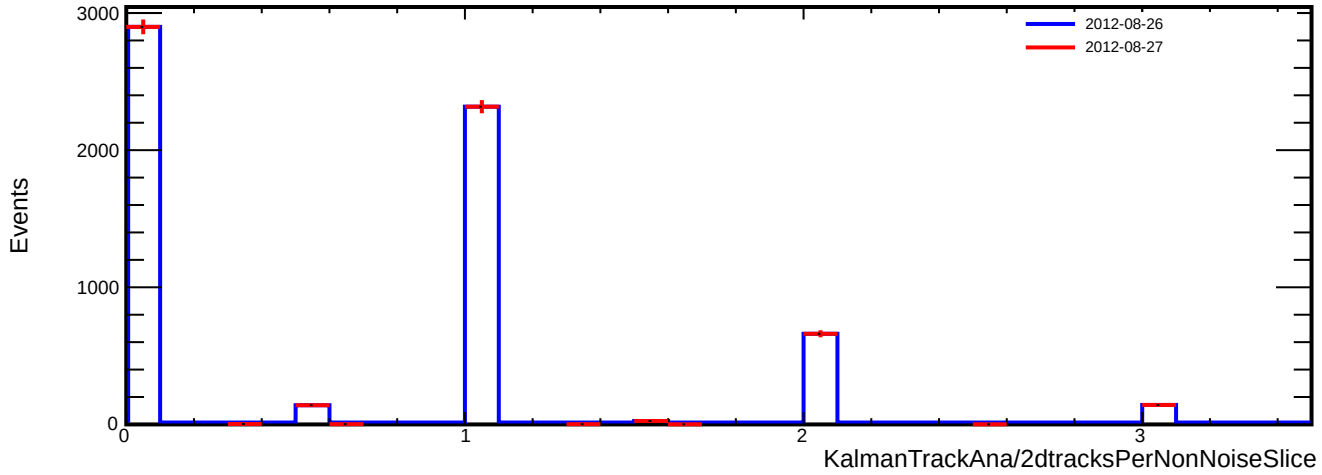

2012-08-26
2012-08-27
Events
3000
2000
1000
0
0
5
10
15
20
KalmanTrackAna/tracksPerEvent

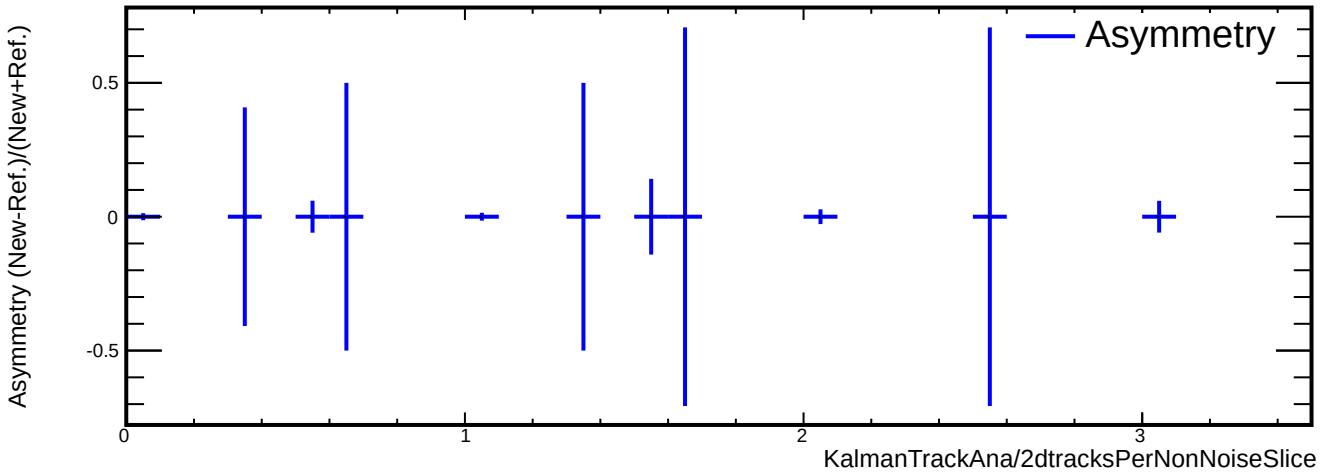

Asymmetry
Asymmetry (New-Ref.)/(New+Ref.)
0.5
0
-0.5
0
5
10
15
20
KalmanTrackAna/tracksPerEvent

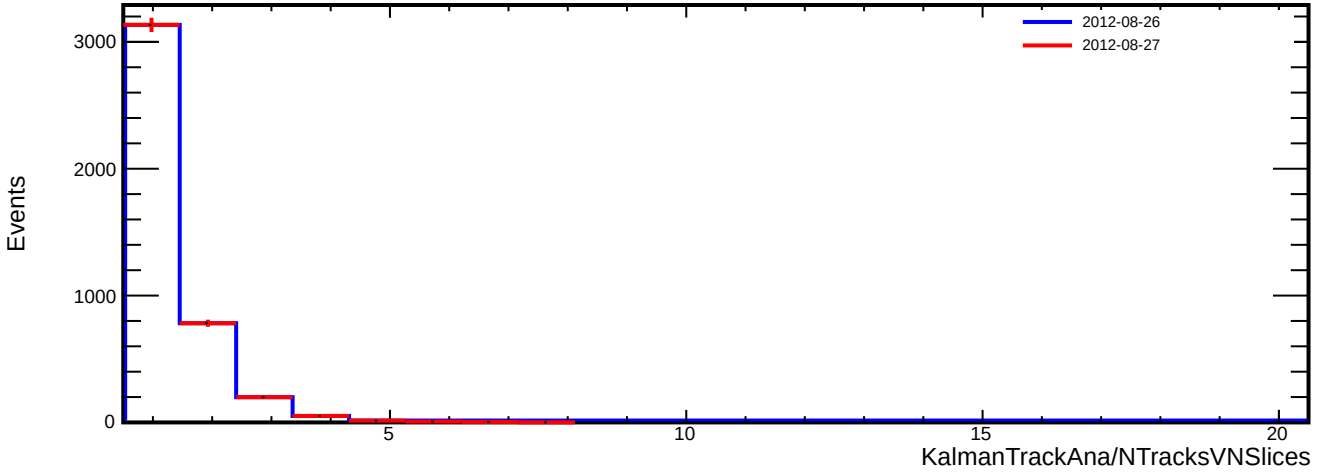

Events
3000
2000
1000
0
0
5
10
15
KalmanTrackAna/2dTracksPerEvent
2012-08-26
2012-08-27
Asymmetry (New-Ref.)/(New+Ref.)
0.5
0
-0.5
Asymmetry

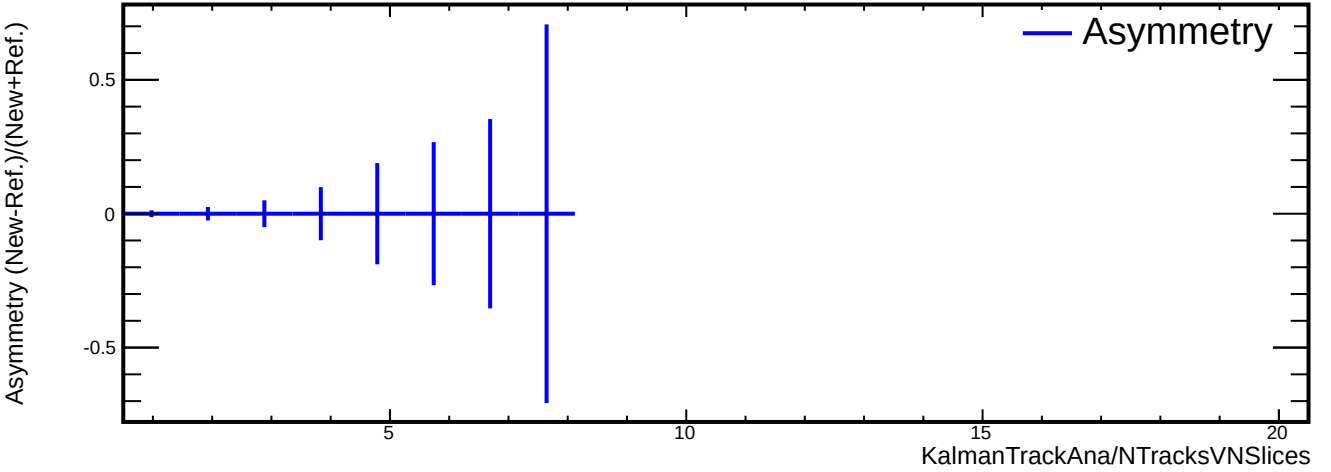

Events
3000
2000
1000
0
0
1
2
3
2012-08-26
2012-08-27
KalmanTrackAna/tracksPerNonNoiseSlice

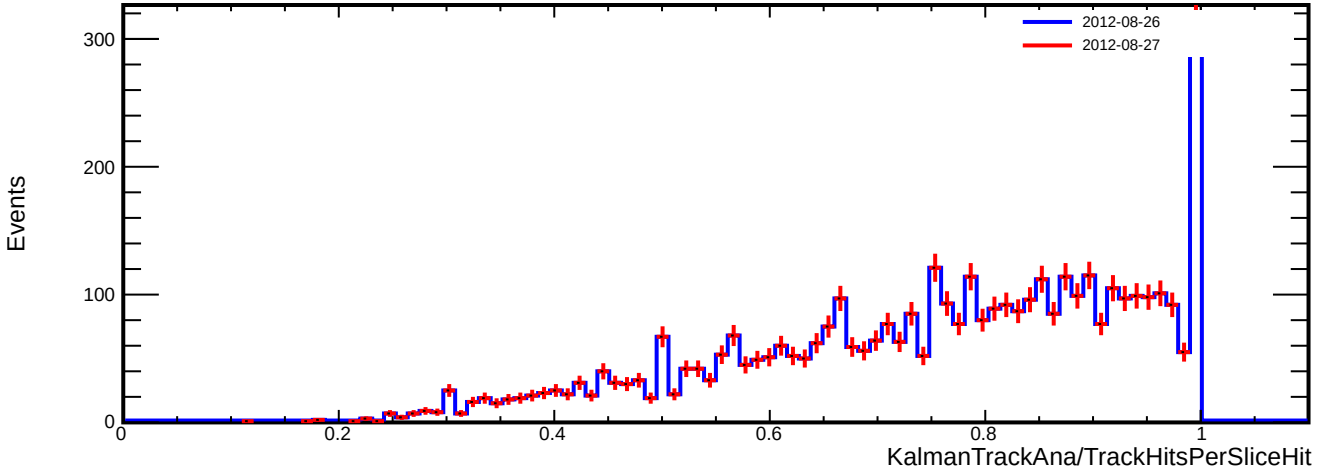

Asymmetry (New-Ref.)/(New+Ref.)
0.4
0.2
0
-0.2
-0.4
0
1
2
3
Asymmetry
KalmanTrackAna/tracksPerNonNoiseSlice

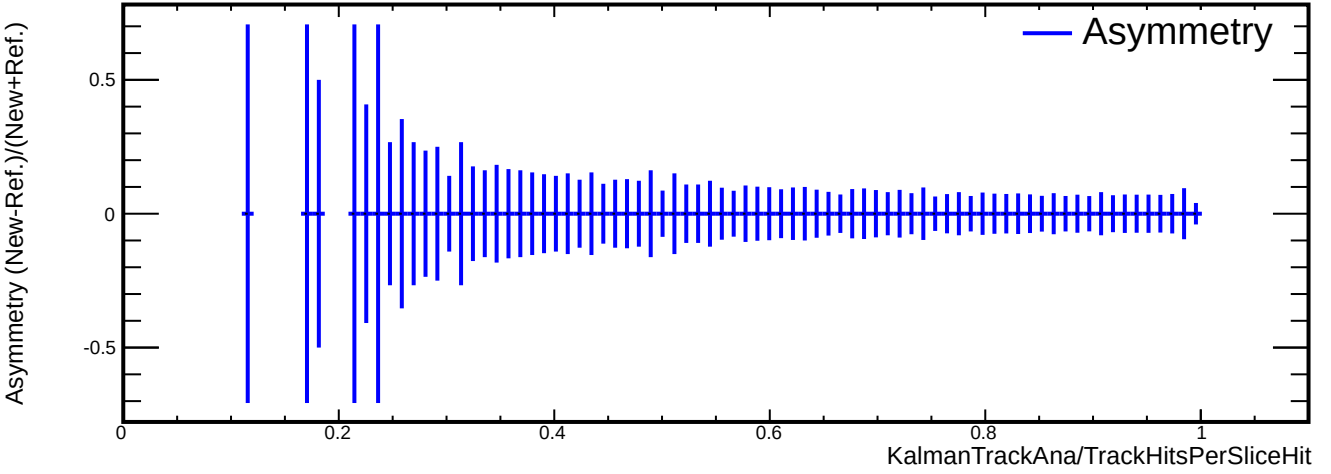

3000
2000
1000
0
Events
0
1
2
3
KalmanTrackAna/2dtracksPerNonNoiseSlice
2012-08-26
2012-08-27

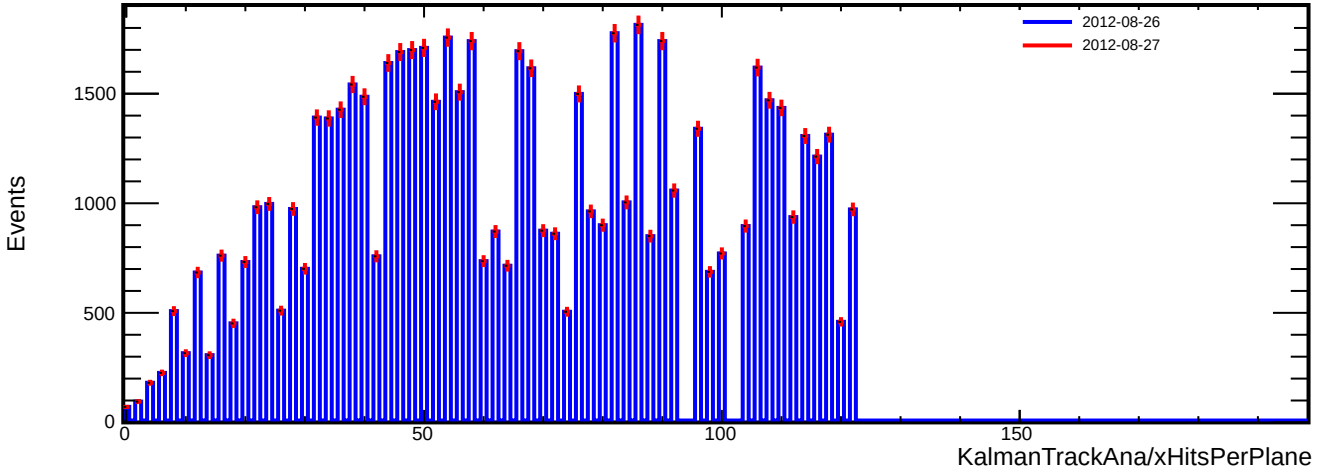

0.5
0
-0.5
Asymmetry (New-Ref.)/(New+Ref.)
0
1
2
3
KalmanTrackAna/2dtracksPerNonNoiseSlice
Asymmetry

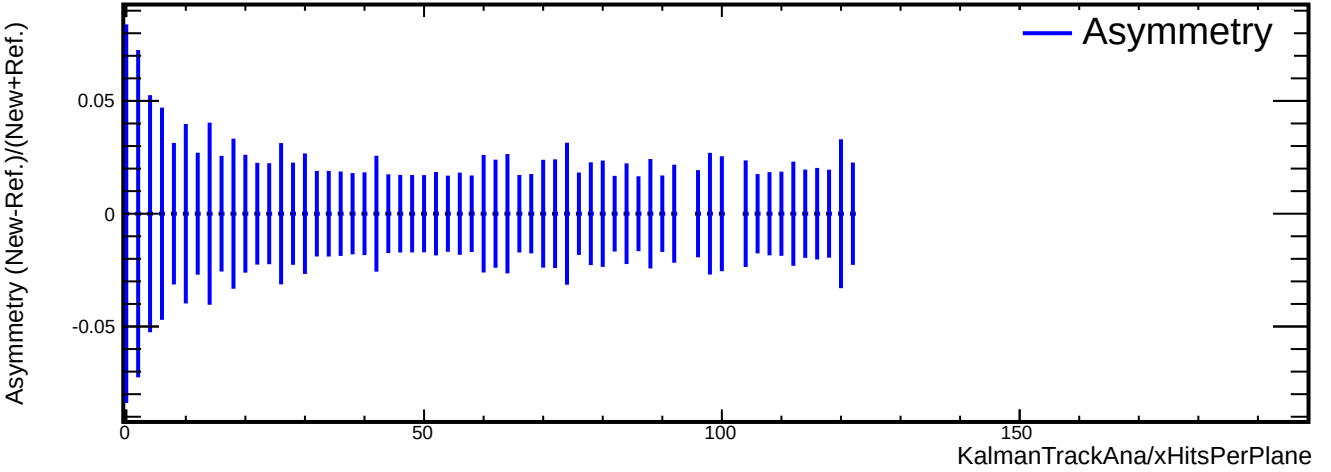

2012-08-26
2012-08-27
Events
3000
2000
1000
0
5
10
15
20
KalmanTrackAna/NTracksVNSlices

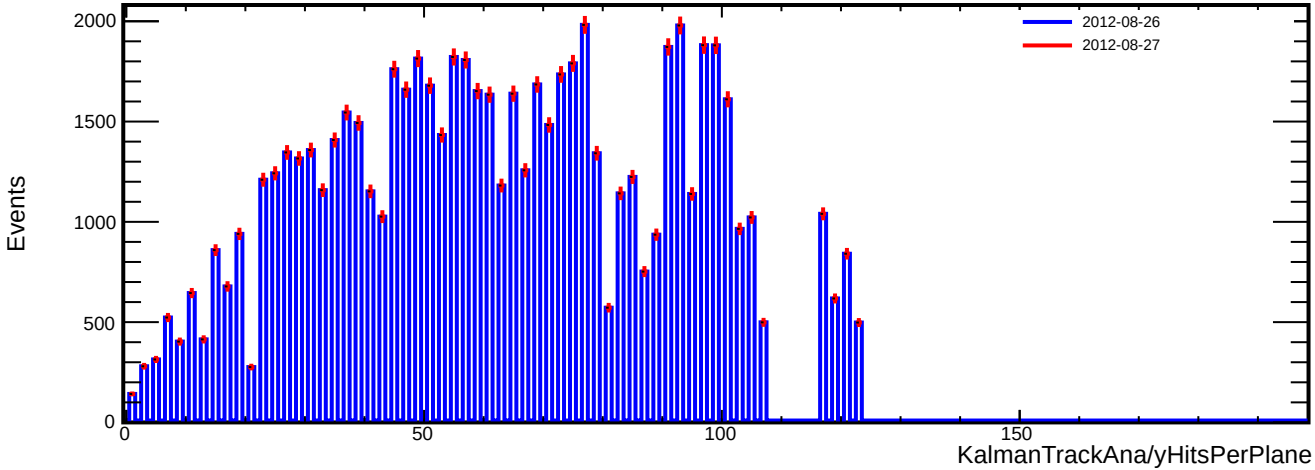

Asymmetry
Asymmetry (New-Ref.)/(New+Ref.)
0.5
0
-0.5
5
10
15
20
KalmanTrackAna/NTracksVNSlices

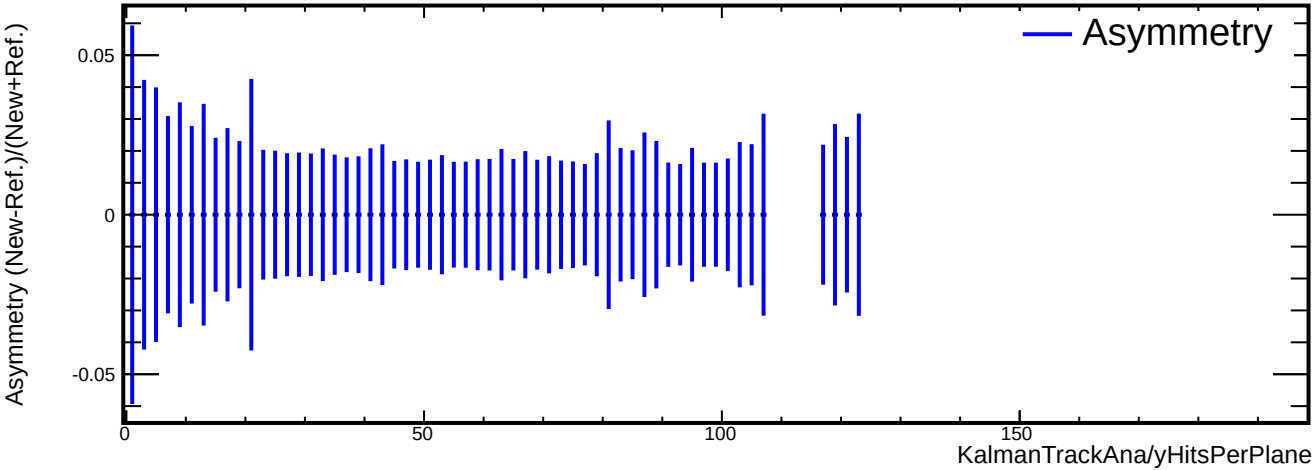

2012-08-26
2012-08-27
Events
300
200
100
0
0
0.2
0.4
0.6
0.8
1
KalmanTrackAna/TrackHitsPerSliceHit

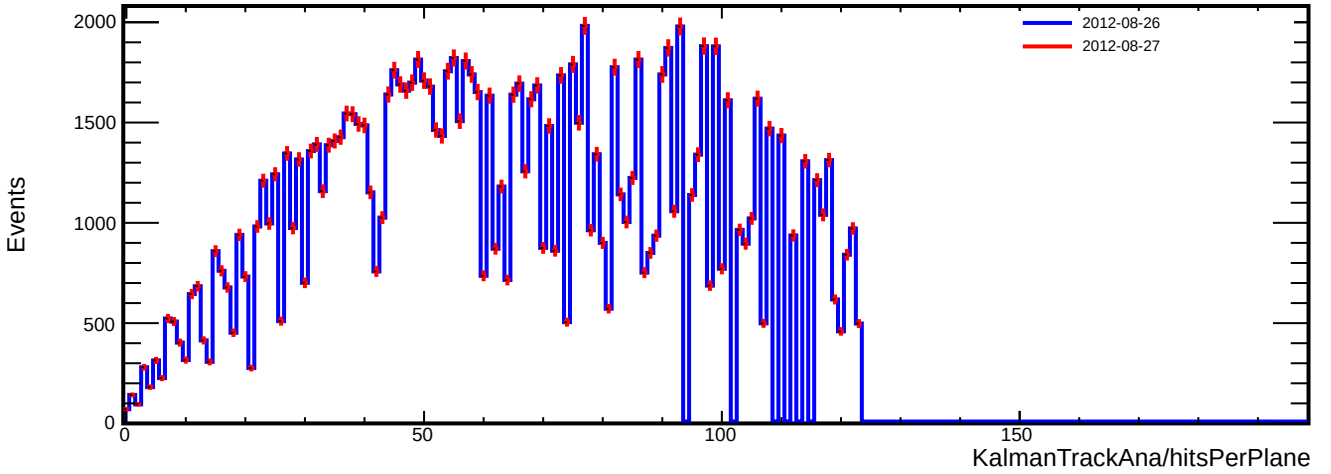

Asymmetry
Asymmetry (New-Ref.)/(New+Ref.)
0.5
0
-0.5
0
0.2
0.4
0.6
0.8
1
KalmanTrackAna/TrackHitsPerSliceHit

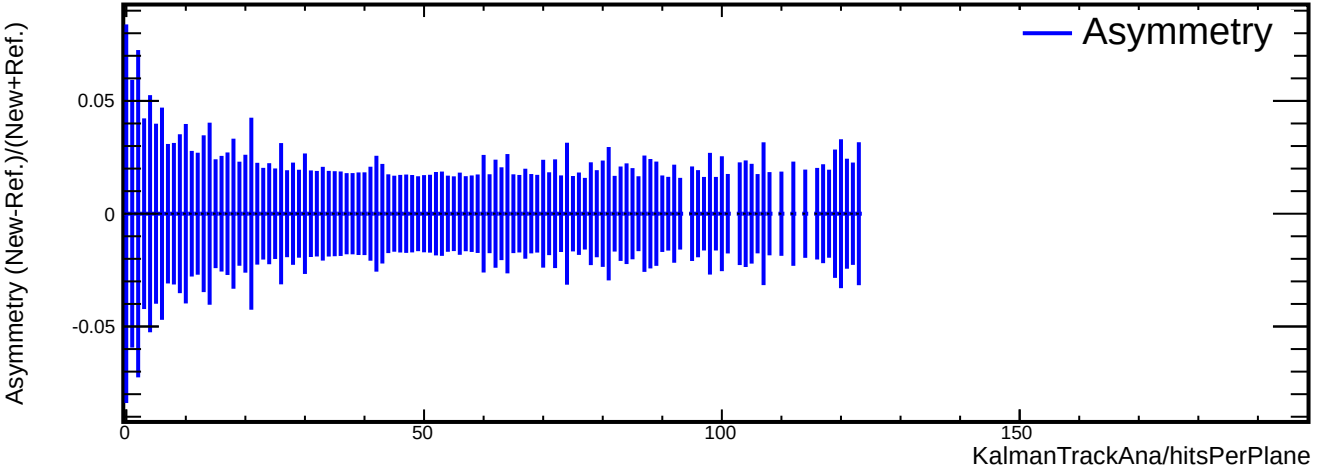

2012-08-26
2012-08-27
Events
0
500
1000
1500
0
50
100
150
KalmanTrackAna/xHitsPerPlane

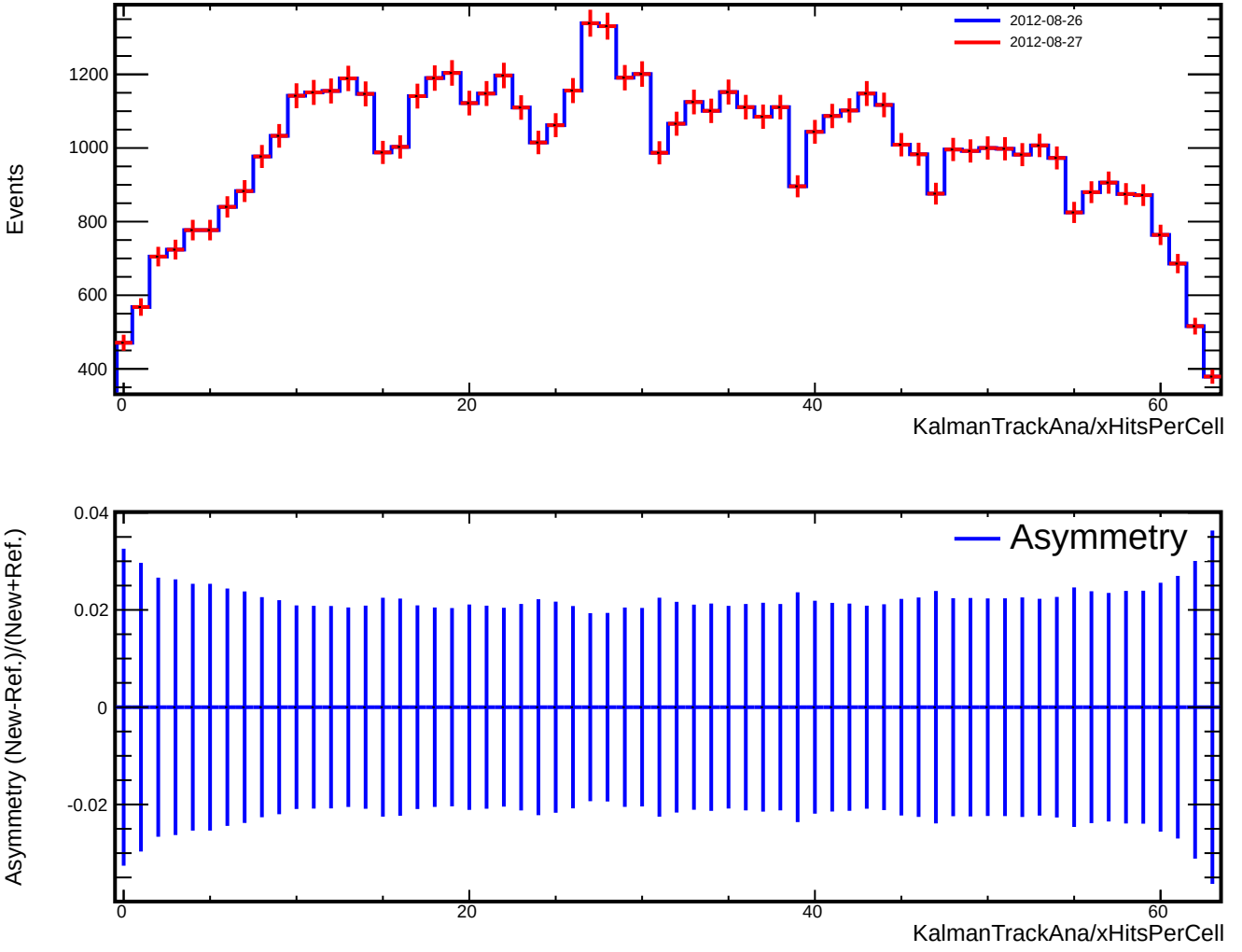

Asymmetry
Asymmetry (New-Ref.)/(New+Ref.)
0.05
0
-0.05
0
50
100
150
KalmanTrackAna/xHitsPerPlane

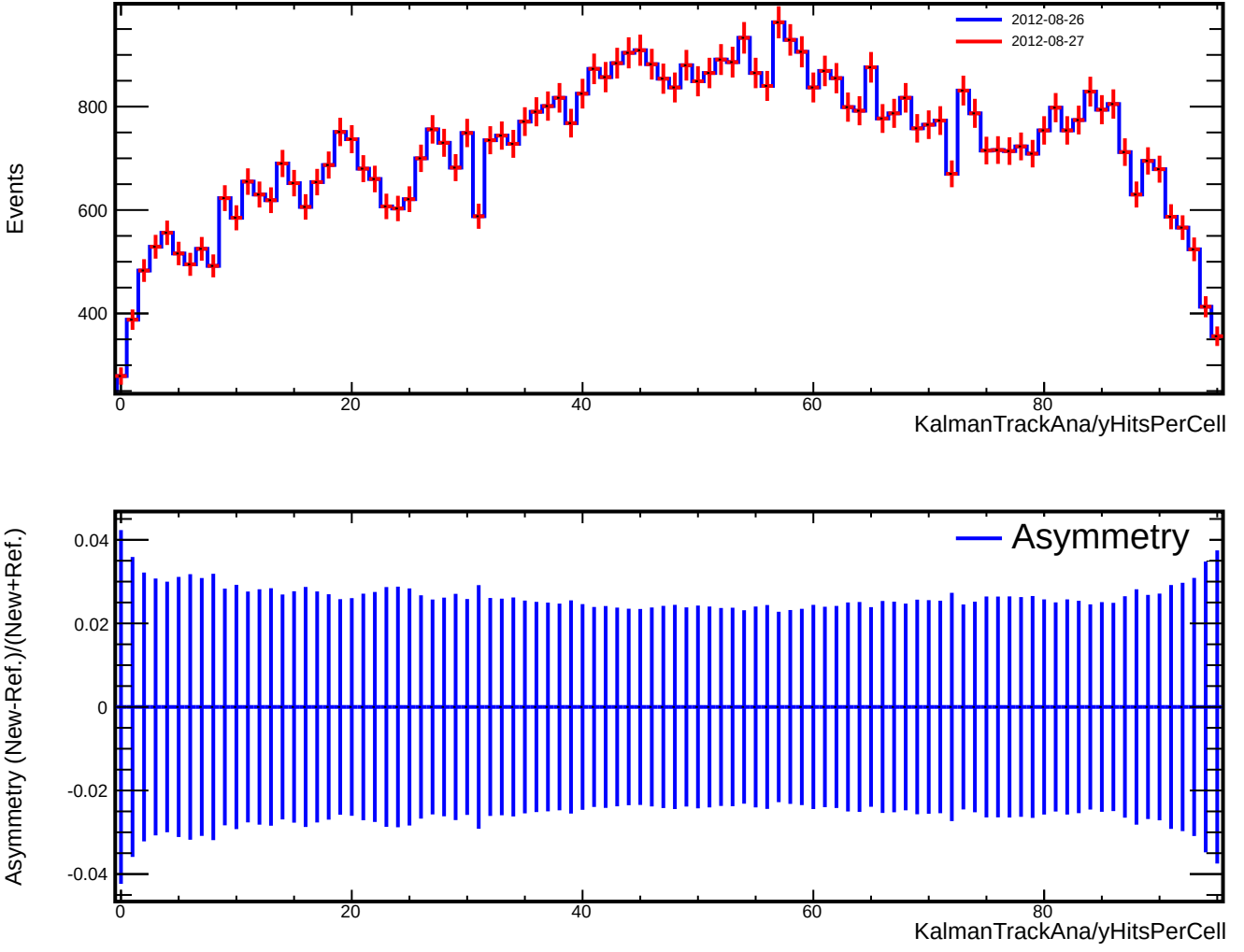

2012-08-26
2012-08-27
Events
2000
1500
1000
500
0
0
50
100
150
KalmanTrackAna/yHitsPerPlane

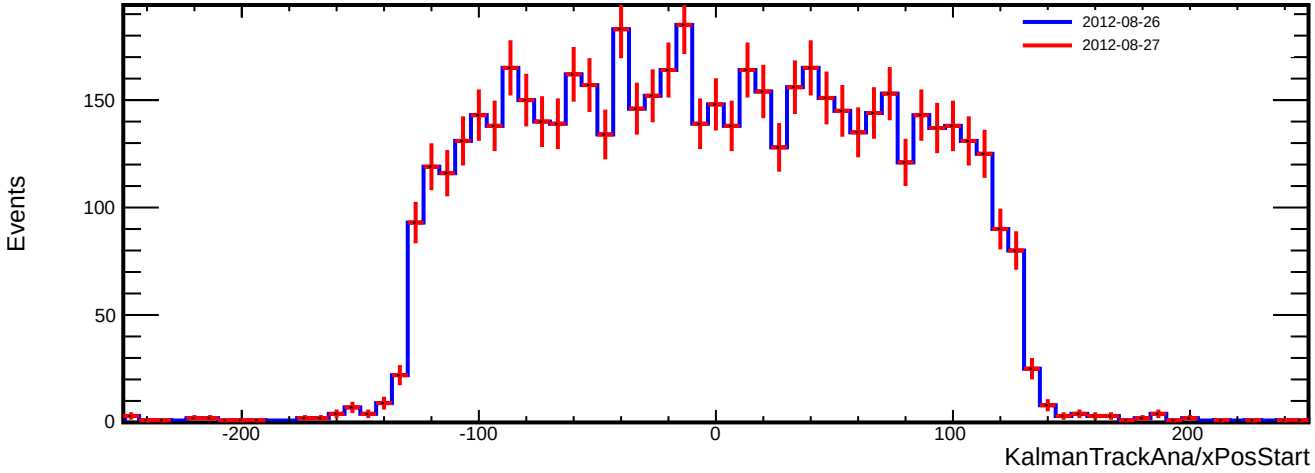

Asymmetry
Asymmetry (New-Ref.)/(New+Ref.)
0.05
0
-0.05
0
50
100
150
KalmanTrackAna/yHitsPerPlane

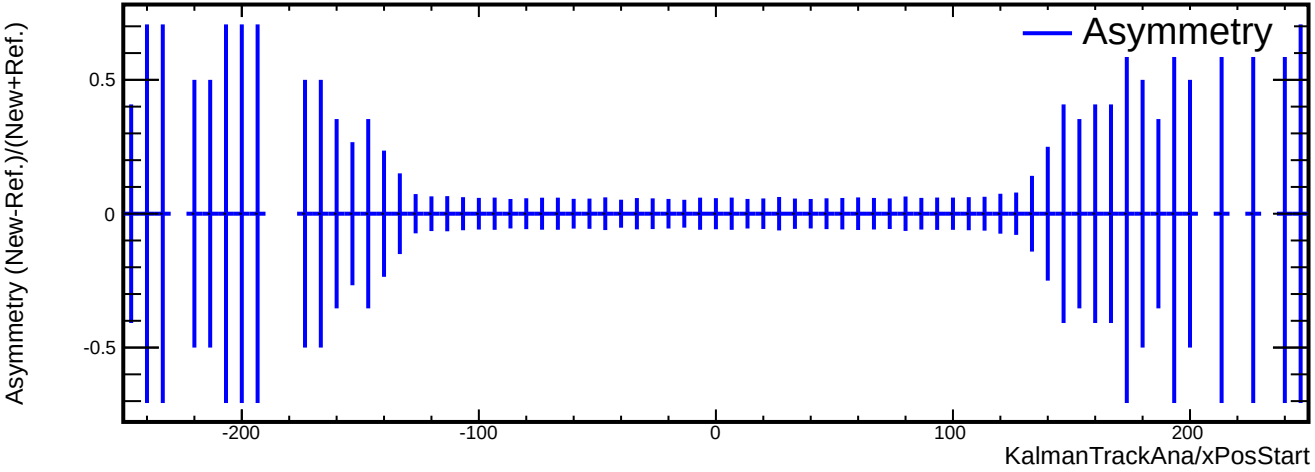

2012-08-26
2012-08-27
Events
2000
1500
1000
500
0
0
50
100
150
KalmanTrackAna/hitsPerPlane

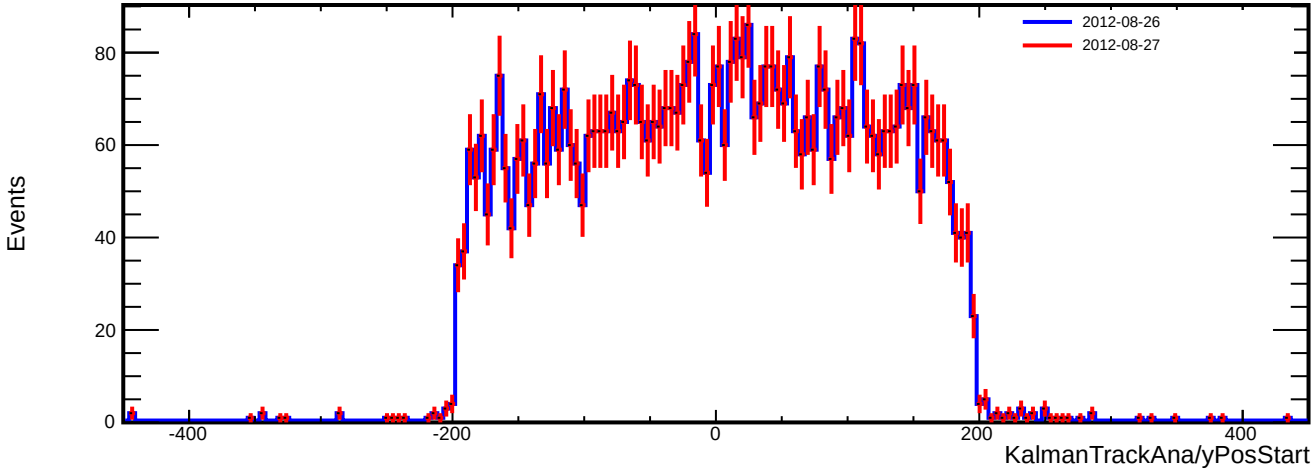

Asymmetry
Asymmetry (New-Ref.)/(New+Ref.)
0.05
0
-0.05
0
50
100
150
KalmanTrackAna/hitsPerPlane

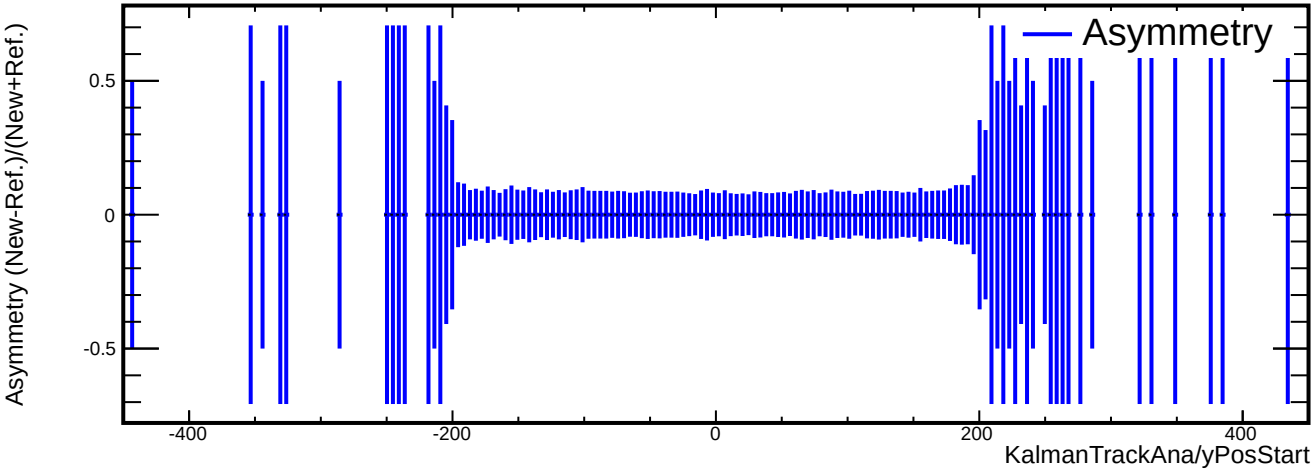

2012-08-26
2012-08-27
Events
1200
1000
800
600
400
0
20
40
60
KalmanTrackAna/xHitsPerCell
Asymmetry
Asymmetry (New-Ref.)/(New+Ref.)
0.04
0.02
0
-0.02
0
20
40
60
KalmanTrackAna/xHitsPerCell

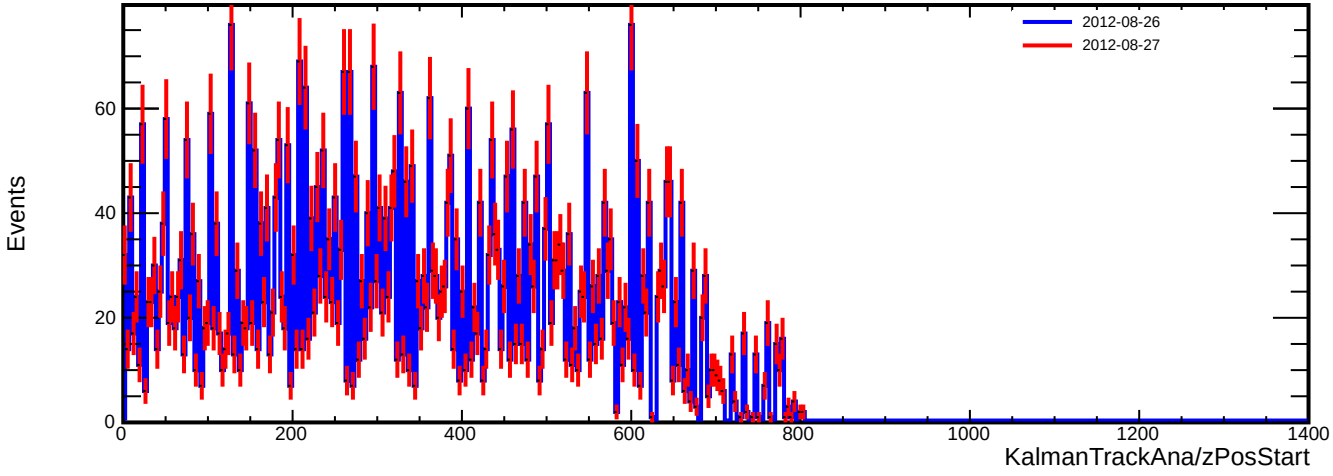

2012-08-26
2012-08-27
Events
800
600
400
0
20
40
60
80
KalmanTrackAna/yHitsPerCell
Asymmetry
Asymmetry (New-Ref.)/(New+Ref.)
0.04
0.02
0
-0.02
-0.04
0
20
40
60
80
KalmanTrackAna/yHitsPerCell

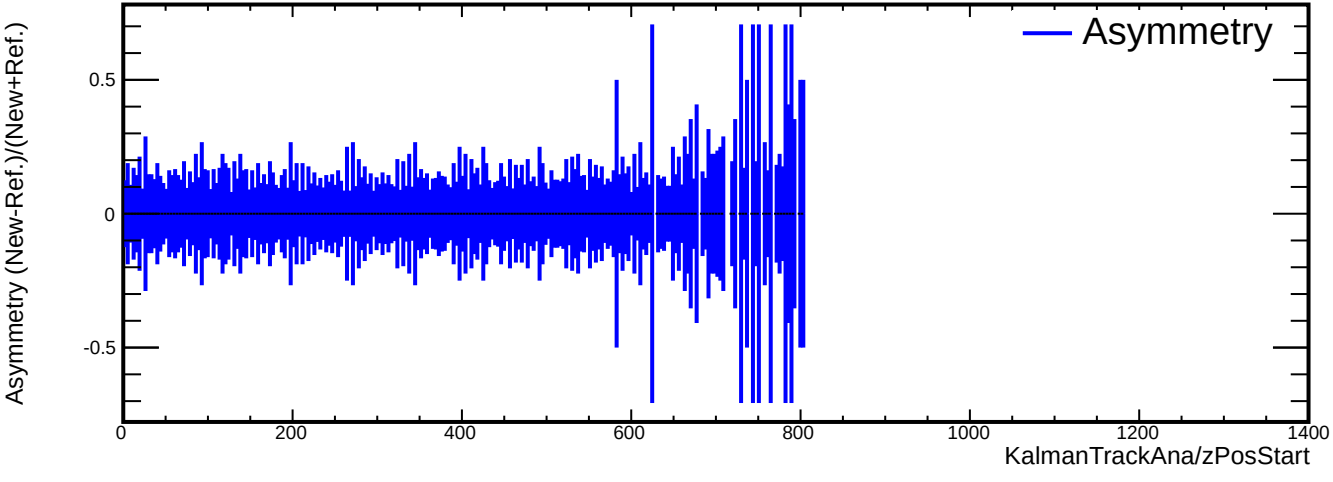

2012-08-26
2012-08-27
Events
150
100
50
0
-200
-100
0
100
200
KalmanTrackAna/xPosStart

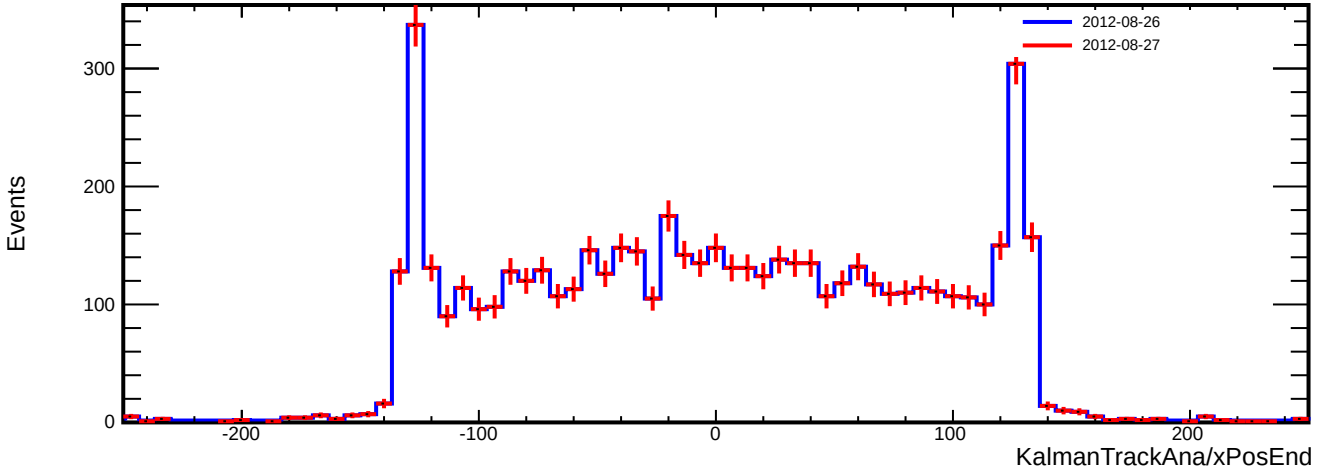

Asymmetry
Asymmetry (New-Ref.)/(New+Ref.)
0.5
0
-0.5
-200
-100
0
100
200
KalmanTrackAna/xPosStart

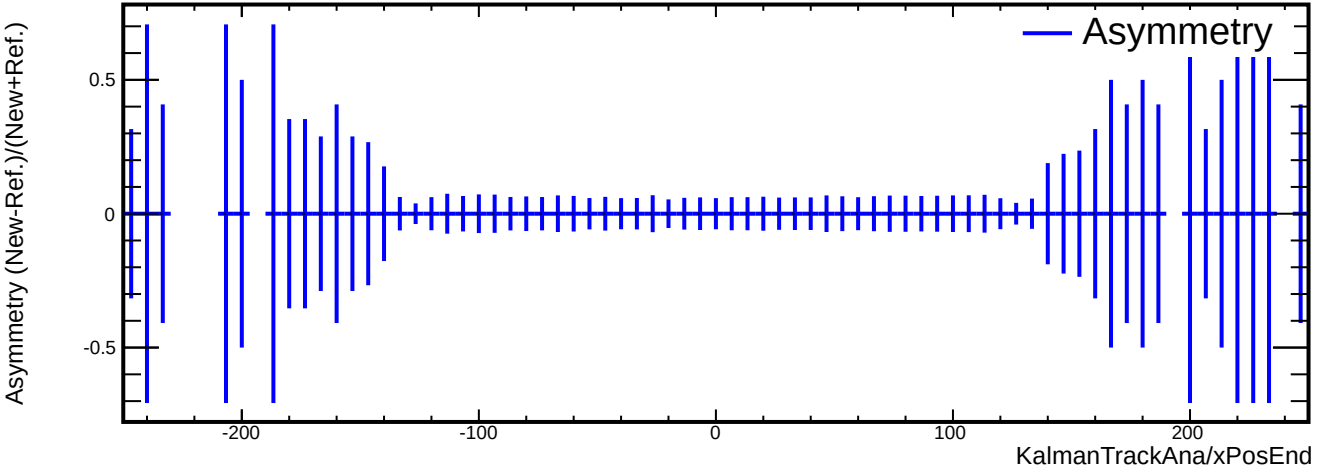

2012-08-26
2012-08-27
Events
80
60
40
20
0
-400
-200
0
200
400
KalmanTrackAna/yPosStart

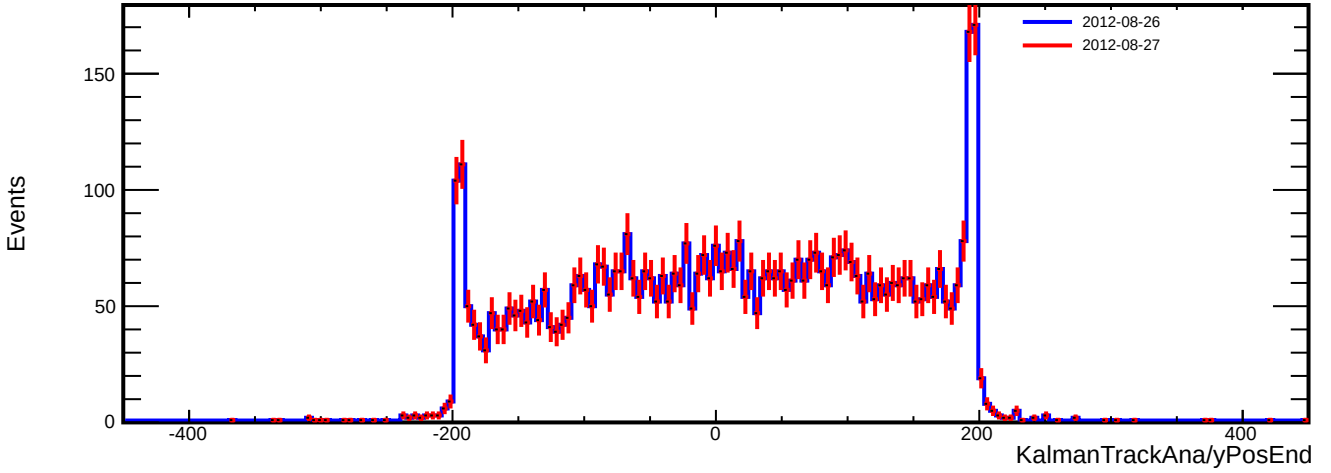

Asymmetry
Asymmetry (New-Ref.)/(New+Ref.)
0.5
0
-0.5
-400
-200
0
200
400
KalmanTrackAna/yPosStart

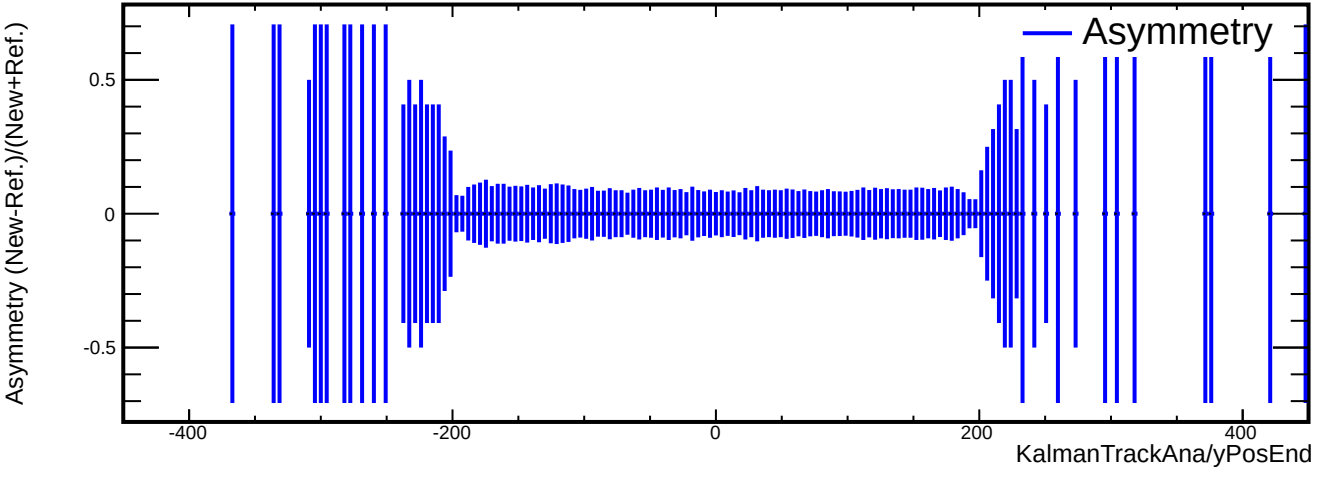

2012-08-26
2012-08-27
Events
0
20
40
60
0
200
400
600
800
1000
1200
1400
KalmanTrackAna/zPosStart

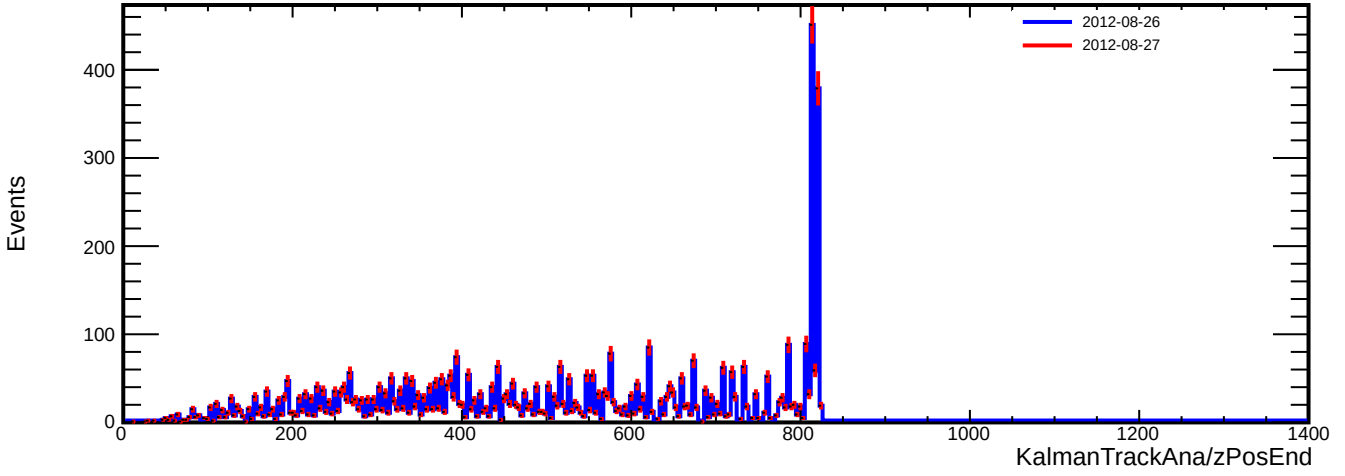

Asymmetry
Asymmetry (New-Ref.)/(New+Ref.)
0.5
0
-0.5
0
200
400
600
800
1000
1200
1400
KalmanTrackAna/zPosStart

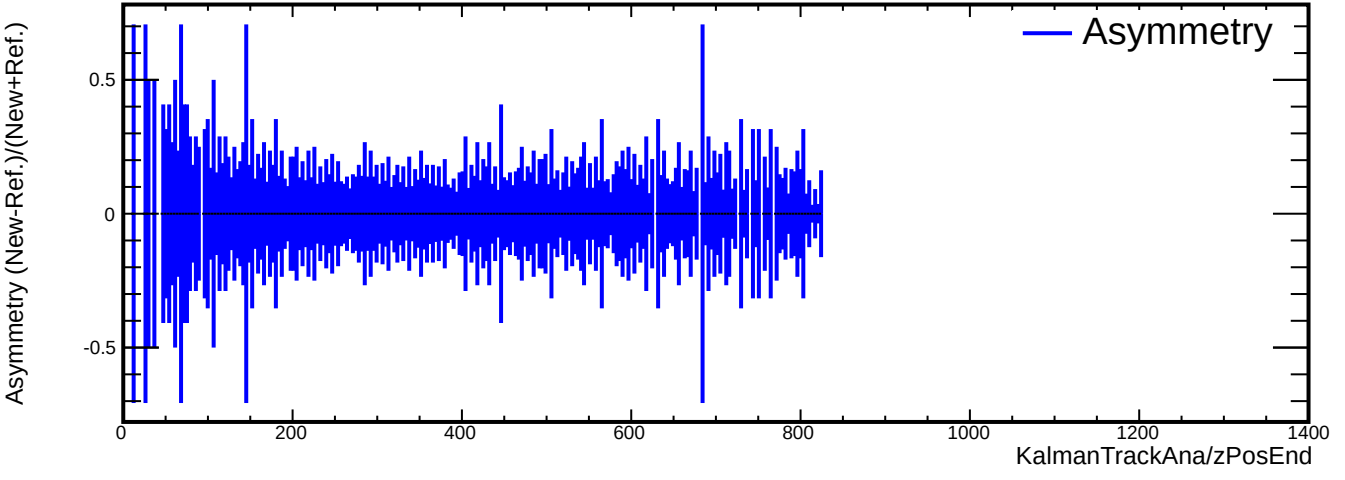

2012-08-26
2012-08-27
Events
300
200
100
0
-200
-100
0
100
200
KalmanTrackAna/xPosEnd

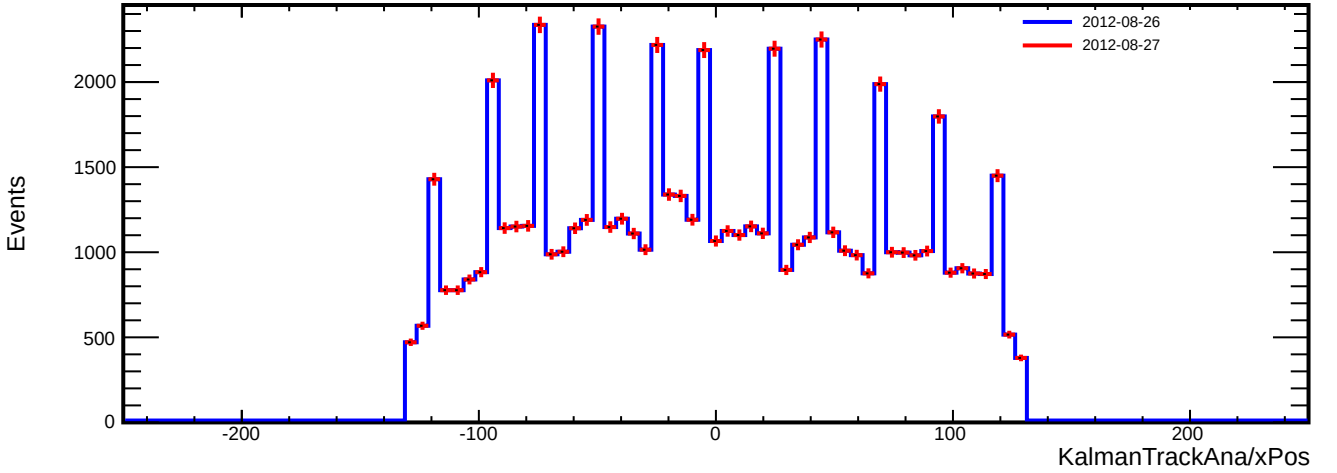

Asymmetry
Asymmetry (New-Ref.)/(New+Ref.)
0.5
0
-0.5
-200
-100
0
100
200
KalmanTrackAna/xPosEnd

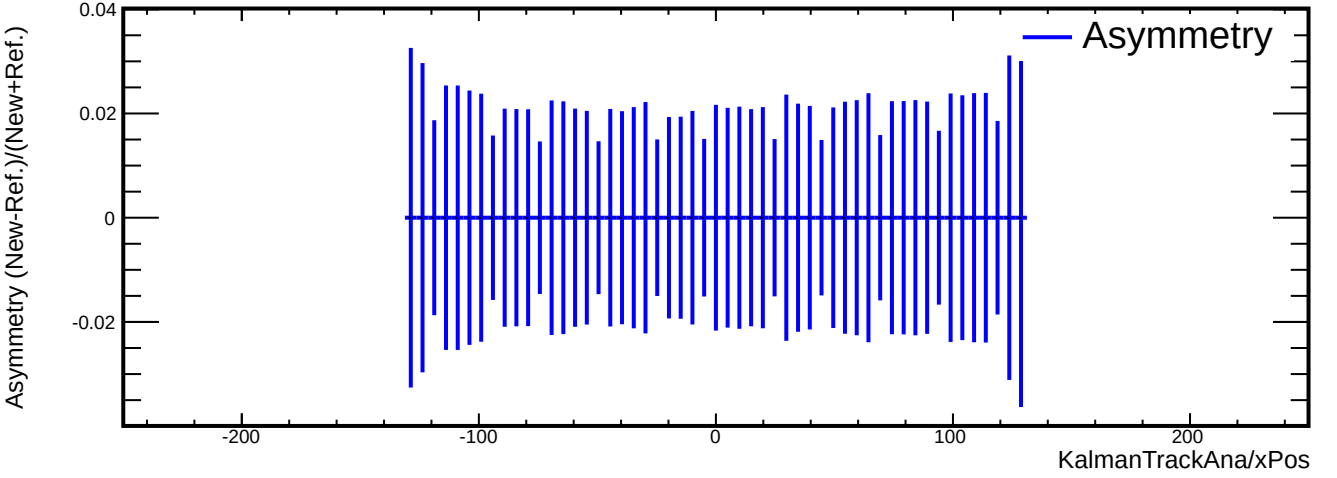

2012-08-26
2012-08-27
Events
150
100
50
0
-400
-200
0
200
400
KalmanTrackAna/yPosEnd

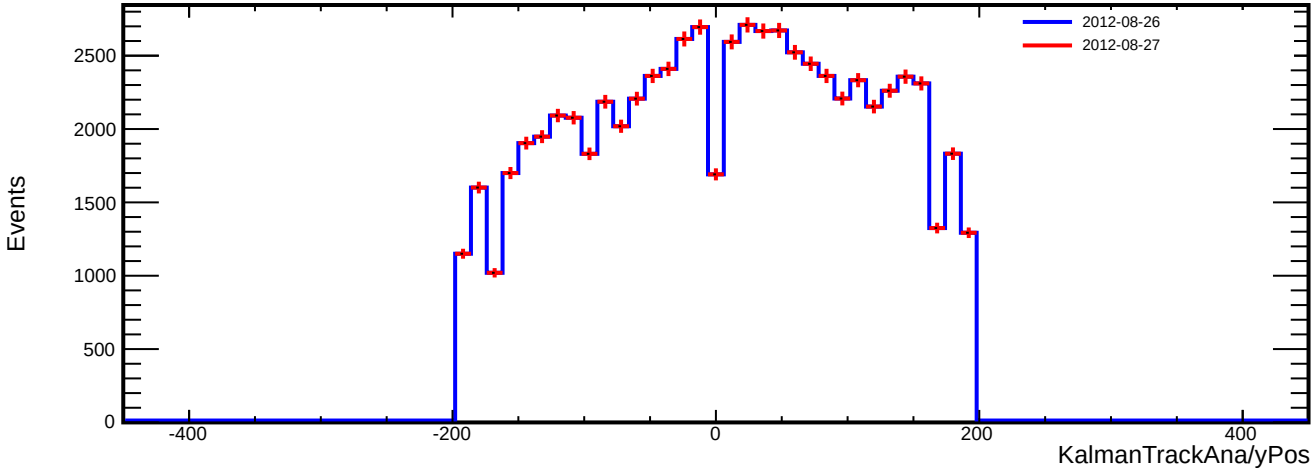

Asymmetry
Asymmetry (New-Ref.)/(New+Ref.)
0.5
0
-0.5
-400
-200
0
200
400
KalmanTrackAna/yPosEnd

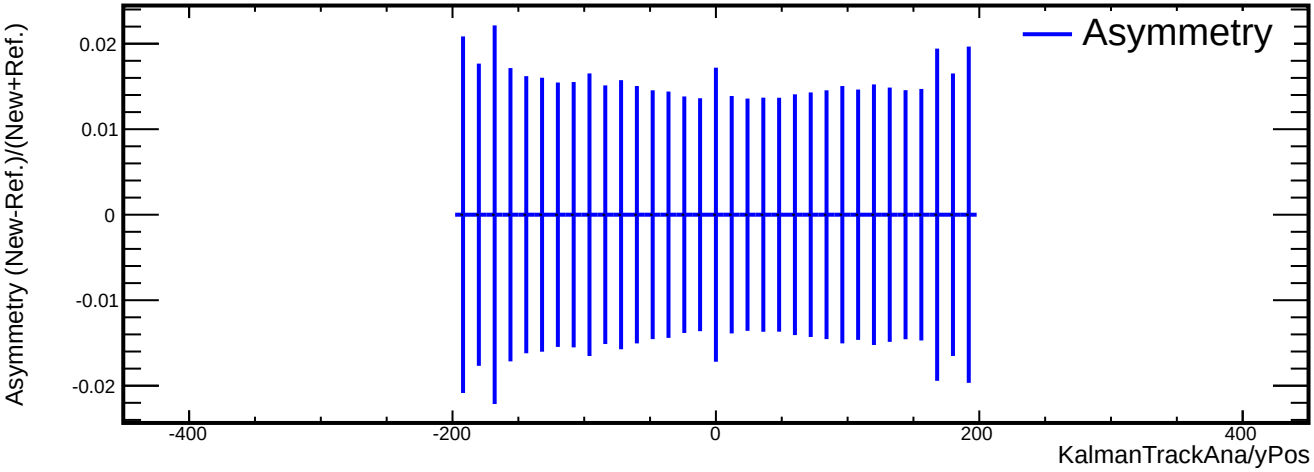

2012-08-26
2012-08-27
Events
0
100
200
300
400
0
200
400
600
800
1000
1200
1400
KalmanTrackAna/zPosEnd

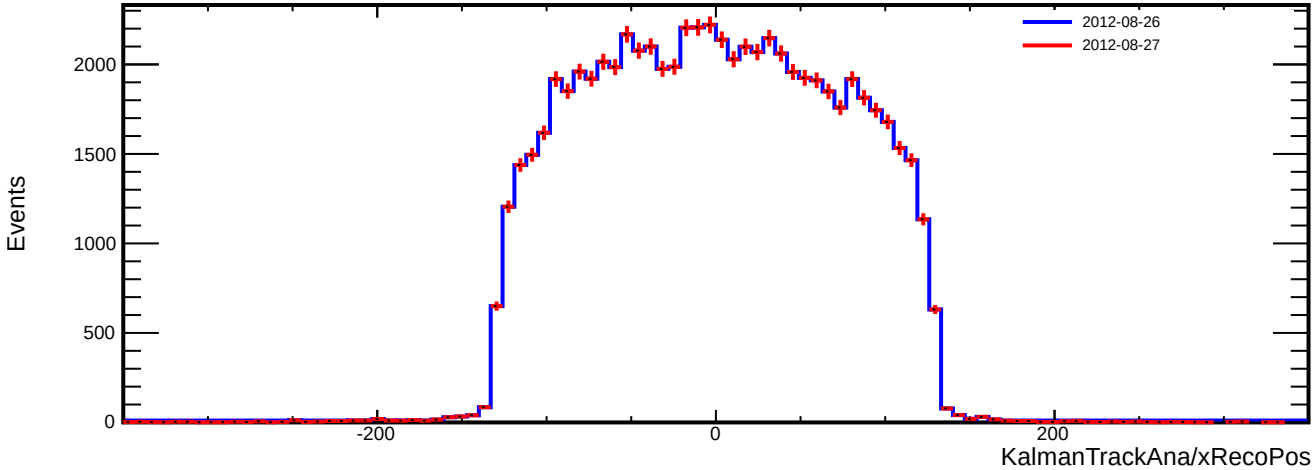

Asymmetry
Asymmetry (New-Ref.)/(New+Ref.)
0.5
0
-0.5
0
200
400
600
800
1000
1200
1400
KalmanTrackAna/zPosEnd

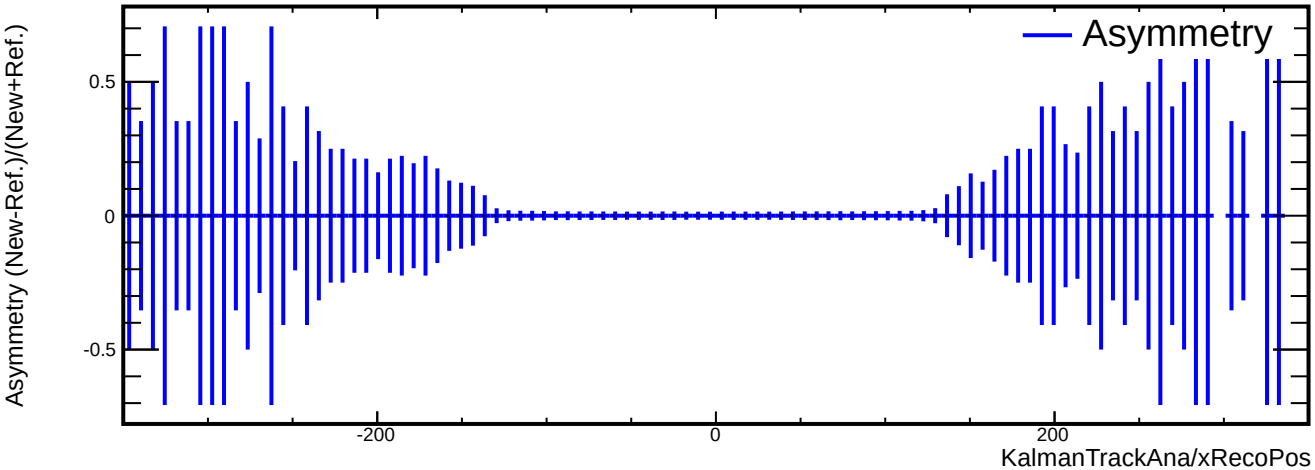

2012-08-26
2012-08-27
Events
0
500
1000
1500
2000
-200
-100
0
100
200
KalmanTrackAna/xPos

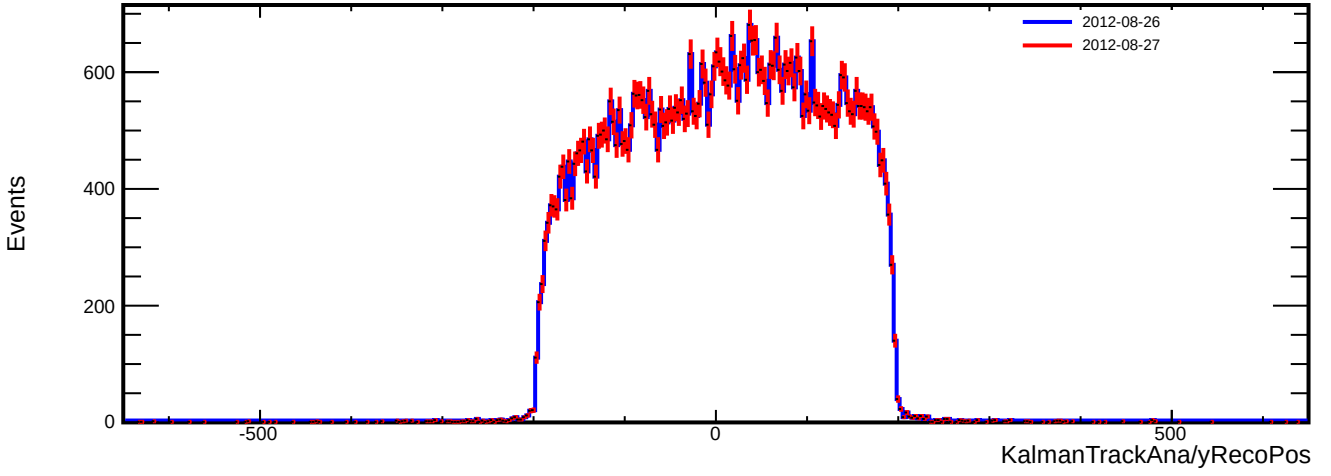

Asymmetry
Asymmetry (New-Ref.)/(New+Ref.)
0.04
0.02
0
-0.02
-200
-100
0
100
200
KalmanTrackAna/xPos

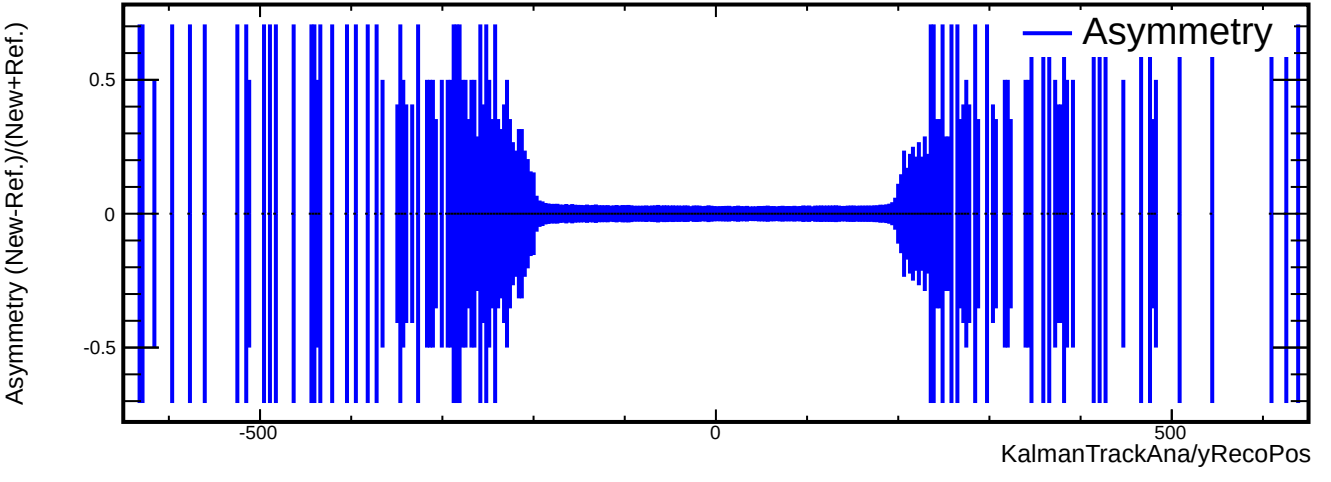

2012-08-26
2012-08-27
Events
2500
2000
1500
1000
500
0
-400
-200
0
200
400
KalmanTrackAna/yPos

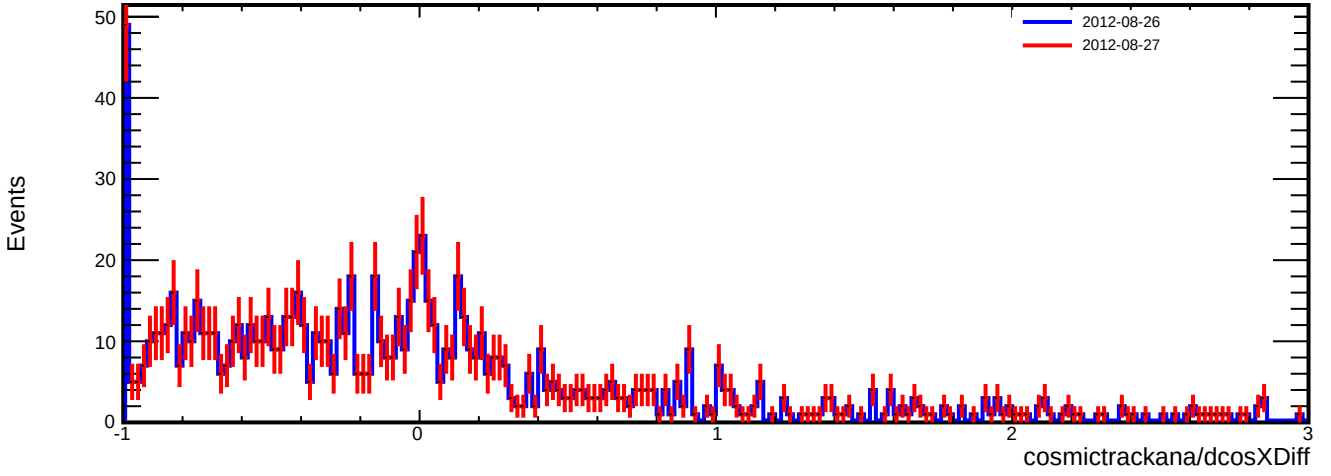

Asymmetry
Asymmetry (New-Ref.)/(New+Ref.)
0.02
0.01
0
-0.01
-0.02
-400
-200
0
200
400
KalmanTrackAna/yPos

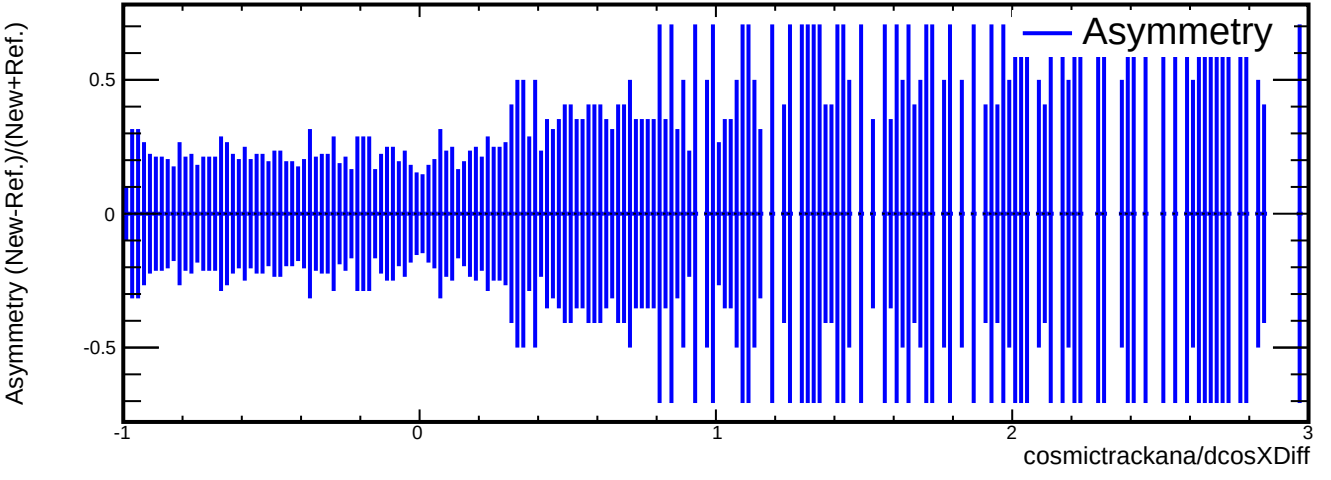

2012-08-26
2012-08-27
Events
2000
1500
1000
500
0
-200
0
200
KalmanTrackAna/xRecoPos

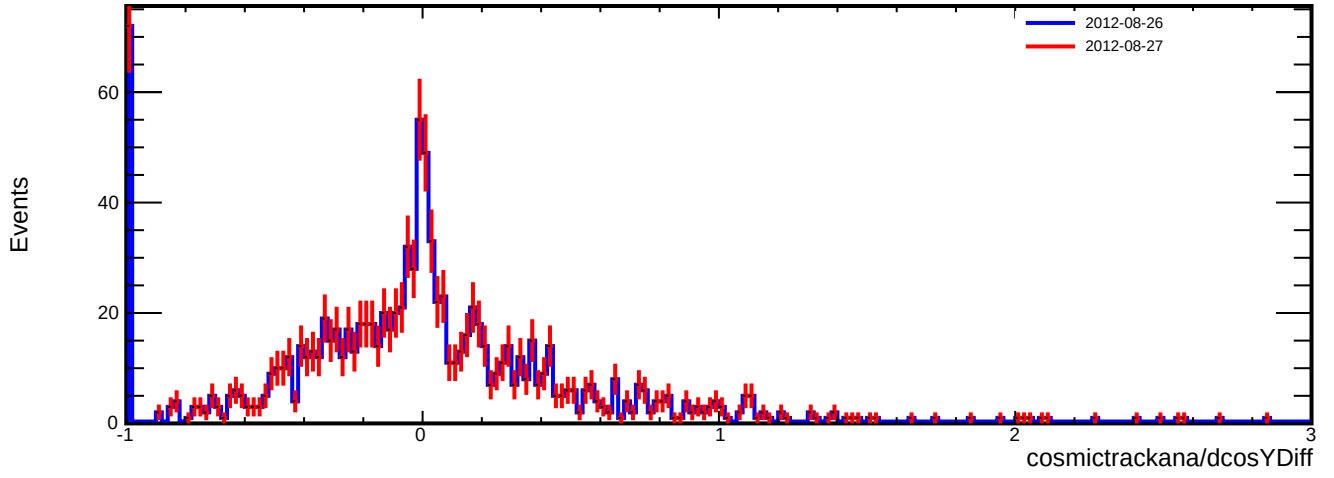

Asymmetry
Asymmetry (New-Ref.)/(New+Ref.)
0.5
0
-0.5
-200
0
200
KalmanTrackAna/xRecoPos

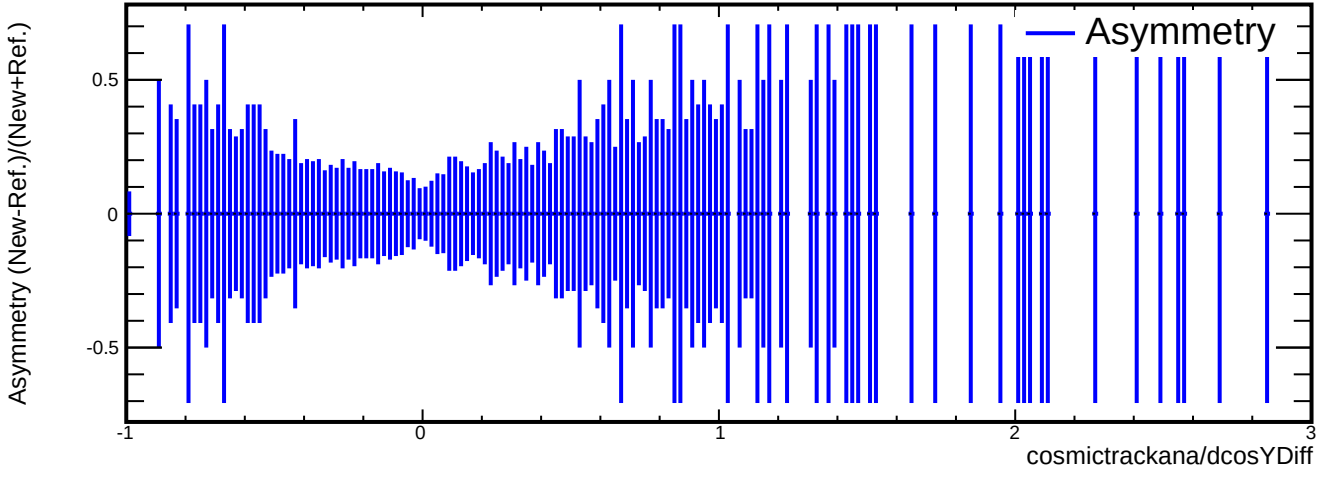

2012-08-26
2012-08-27
Events
600
400
200
0
-500
0
500
KalmanTrackAna/yRecoPos

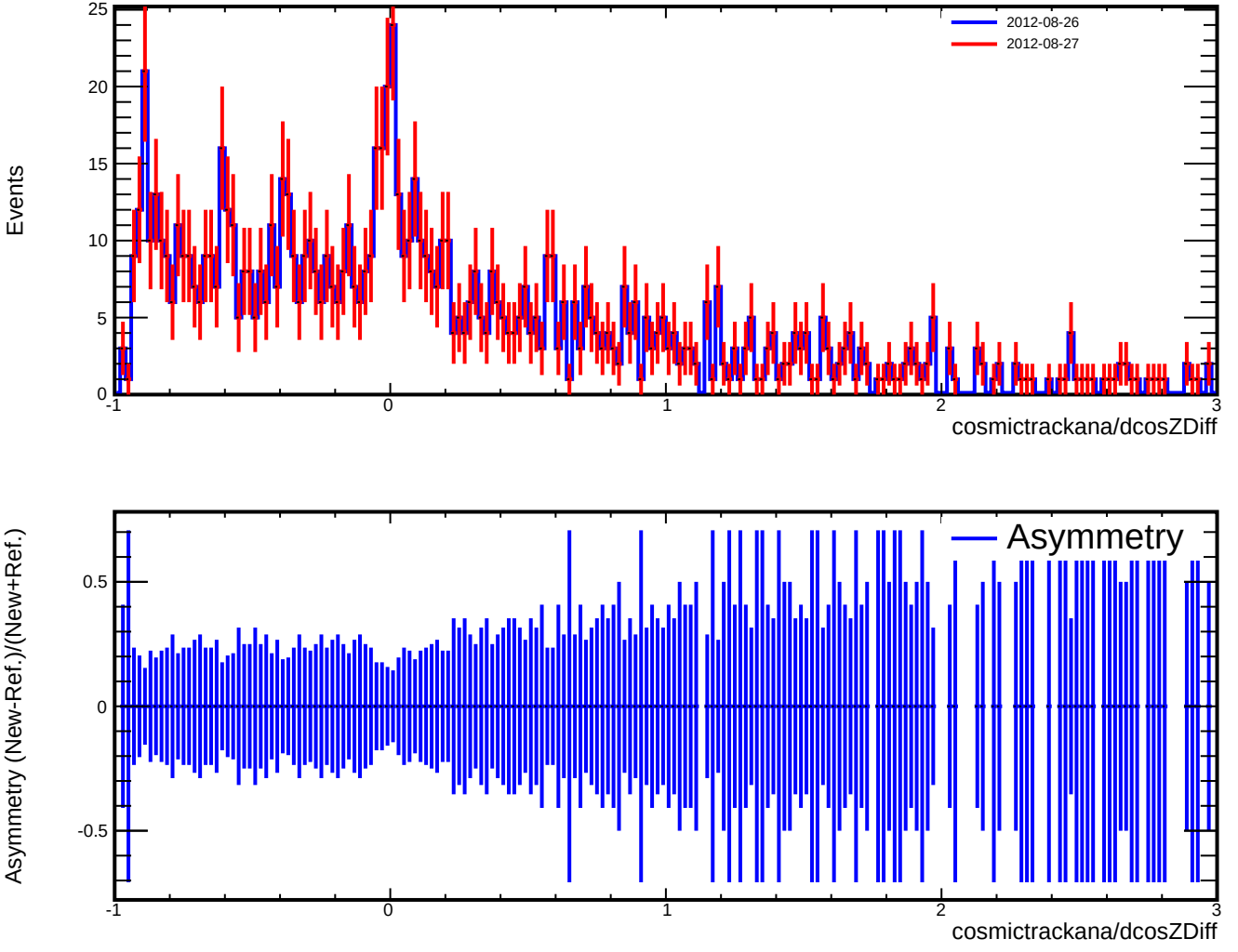

Asymmetry
Asymmetry (New-Ref.)/(New+Ref.)
0.5
0
-0.5
-500
0
500
KalmanTrackAna/yRecoPos

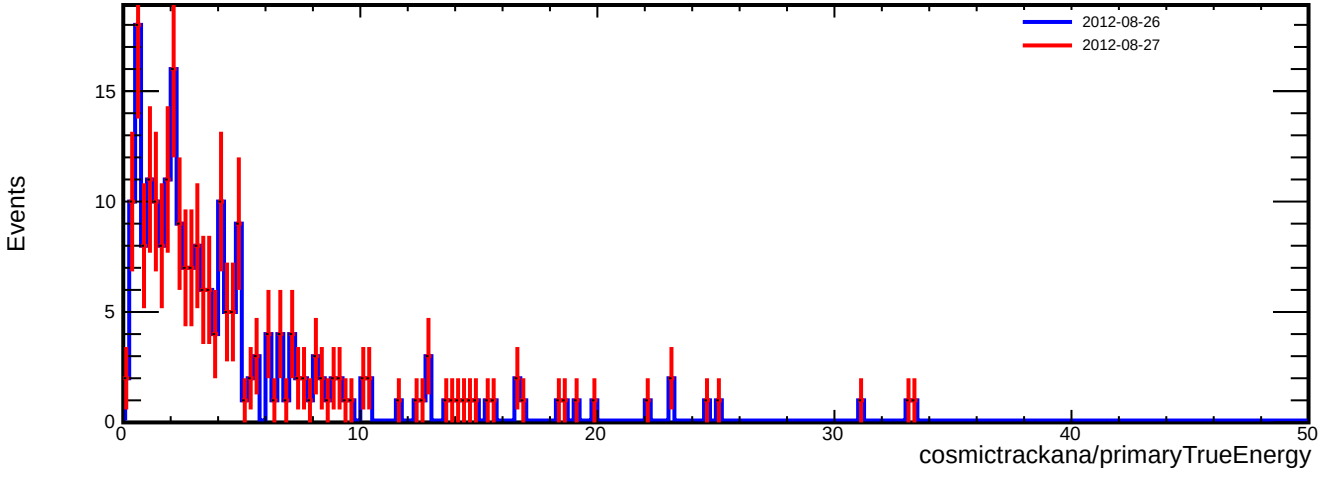

2012-08-26
2012-08-27
Events
cosmictrackana/dcosXDiff

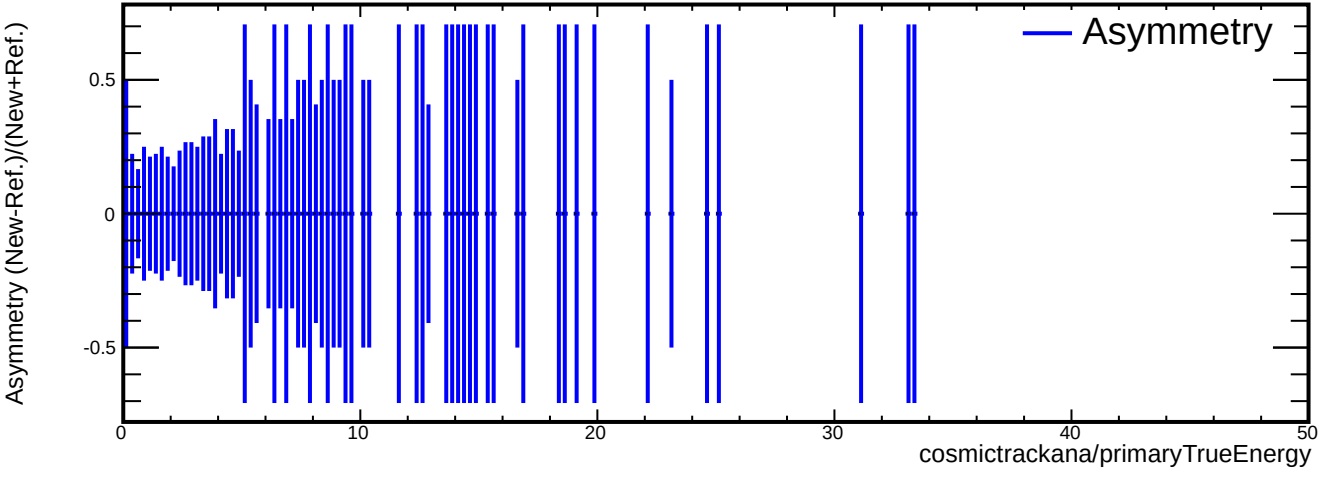

Asymmetry
Asymmetry (New-Ref.)/(New+Ref.)
cosmictrackana/dcosXDiff

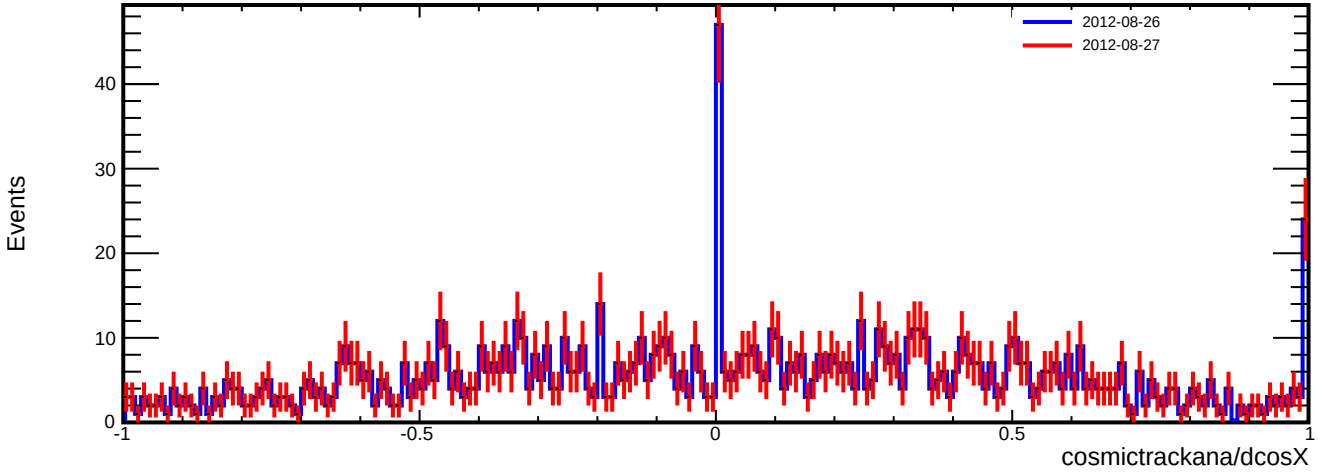

2012-08-26
2012-08-27
Events
60
40
20
0
-1
0
1
2
3
cosmictrackana/dcosYDiff

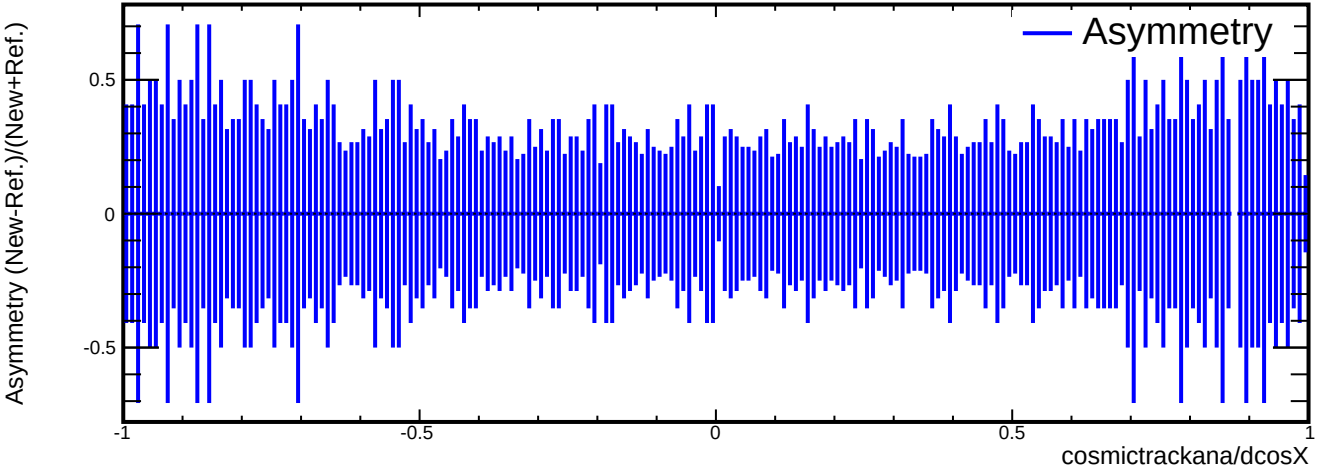

Asymmetry
Asymmetry (New-Ref.)/(New+Ref.)
0.5
0
-0.5
-1
0
1
2
3
cosmictrackana/dcosYDiff

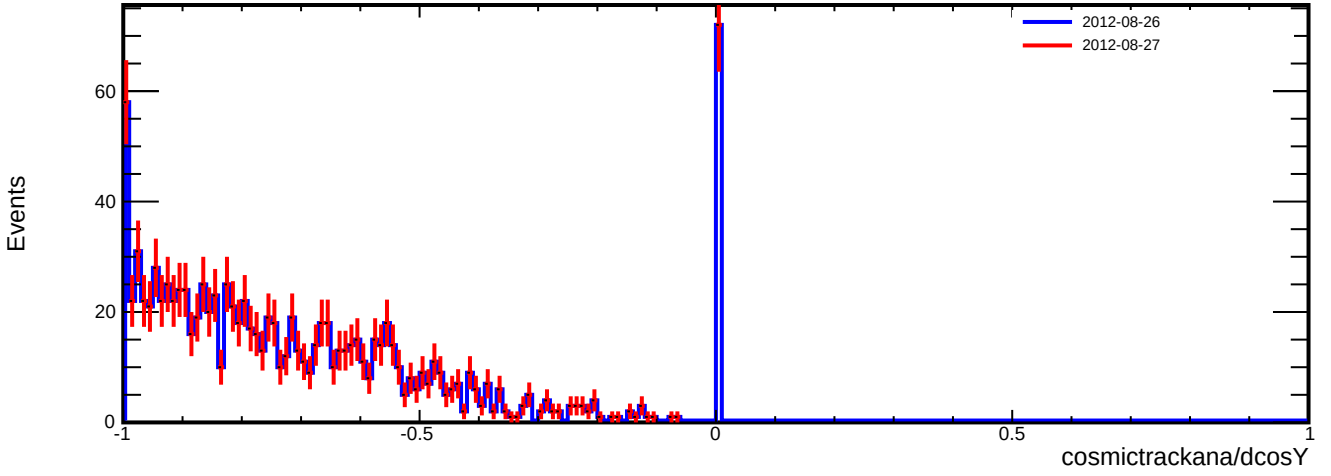

Events
2012-08-26
2012-08-27
cosmictrackana/dcosZDiff
Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
cosmictrackana/dcosZDiff

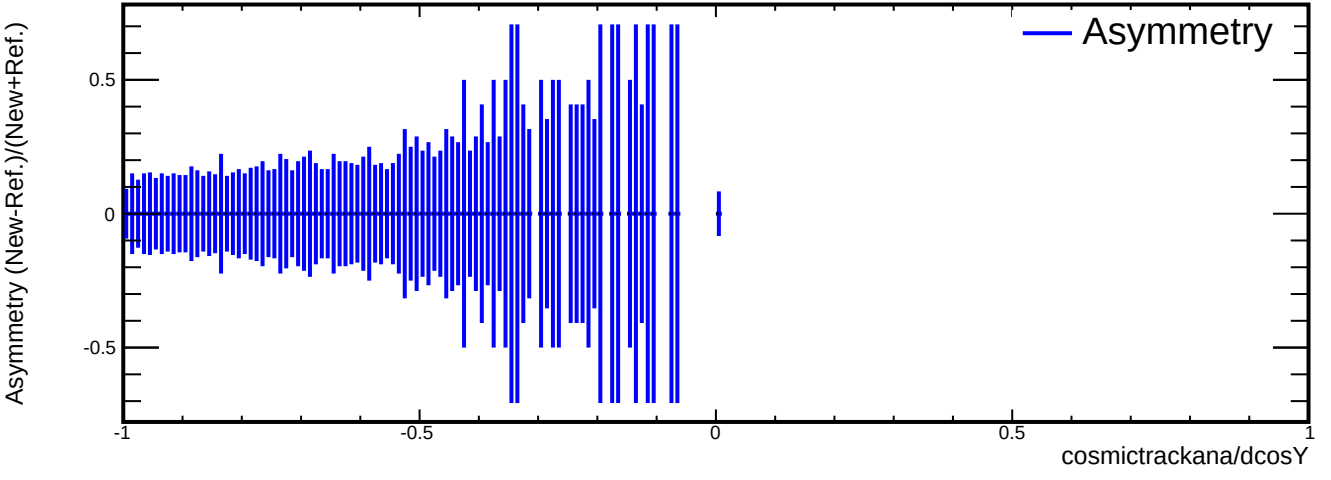

2012-08-26
2012-08-27
Events
0
5
10
15
0
10
20
30
40
50
cosmictrackana/primaryTrueEnergy

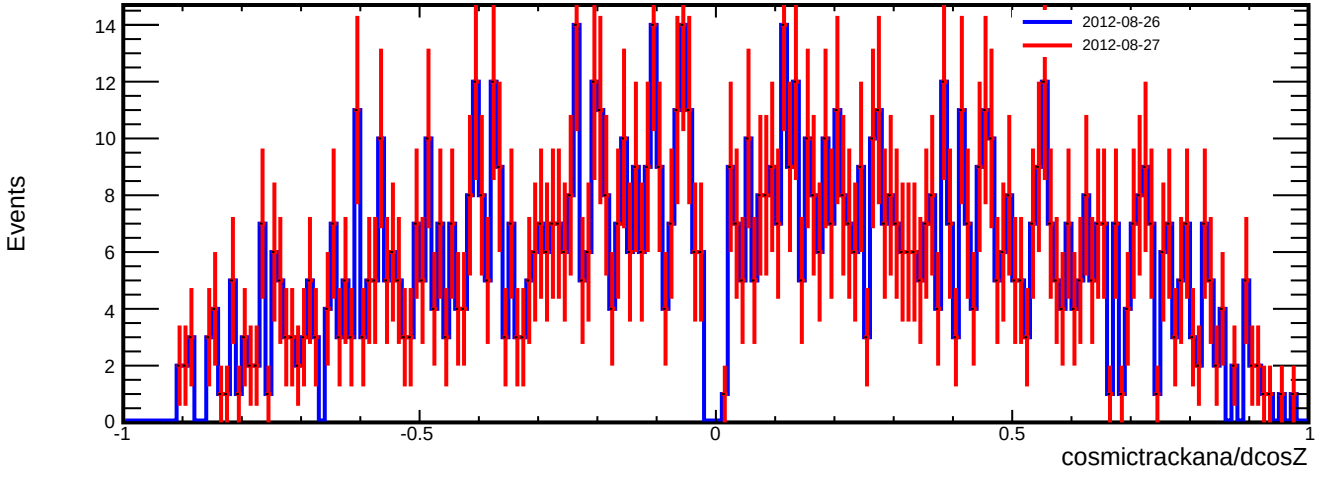

Asymmetry
Asymmetry (New-Ref.)/(New+Ref.)
0.5
0
-0.5
0
10
20
30
40
50
cosmictrackana/primaryTrueEnergy

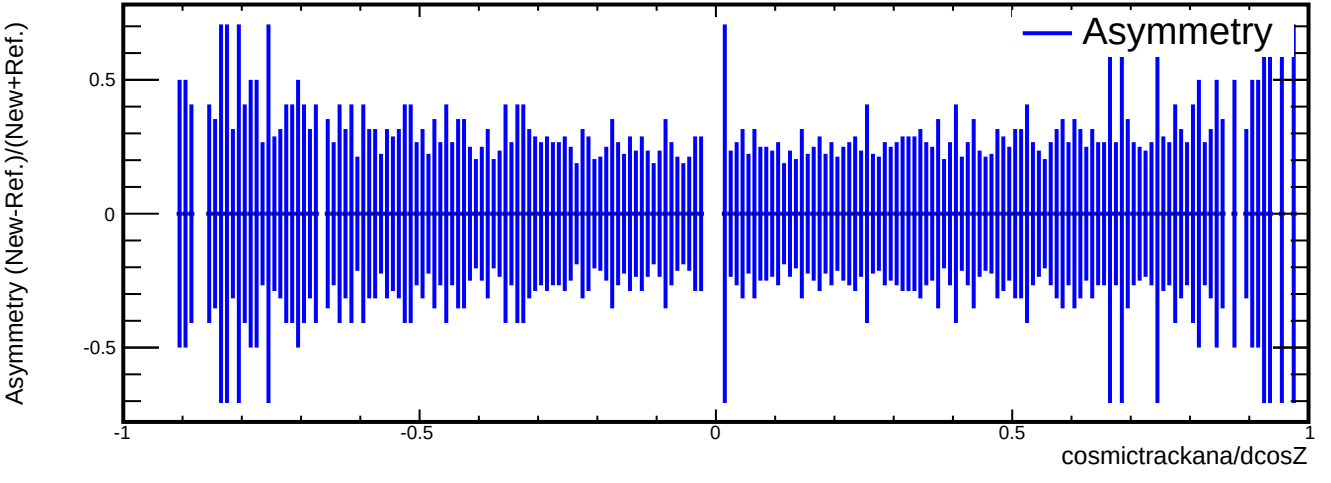

2012-08-26
2012-08-27
Events
0
10
20
30
40
-1
-0.5
0
0.5
1
cosmictrackana/dcosX

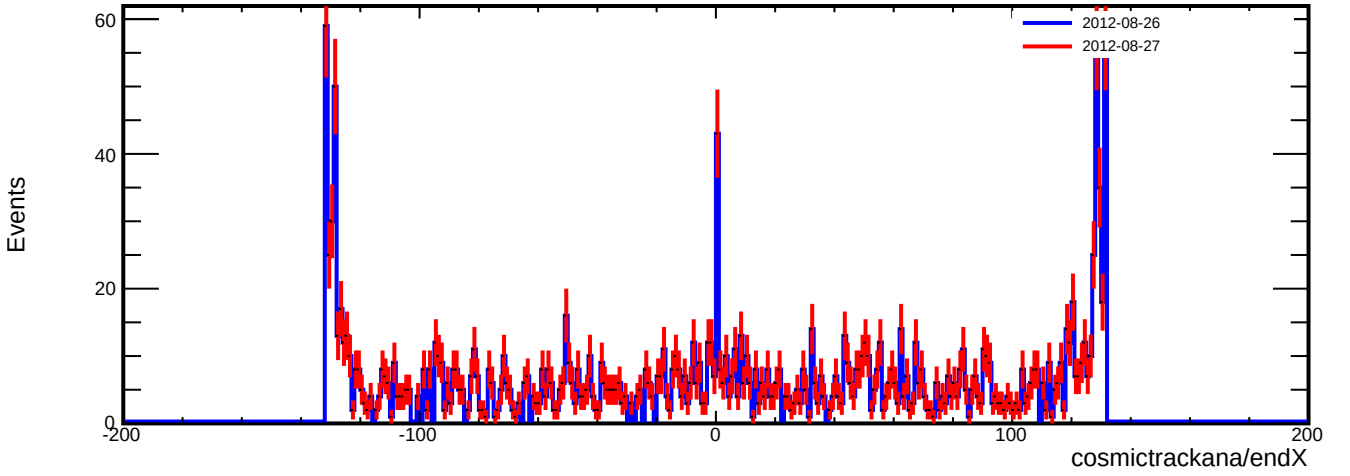

Asymmetry
Asymmetry (New-Ref.)/(New+Ref.)
0.5
0
-0.5
-1
-0.5
0
0.5
1
cosmictrackana/dcosX

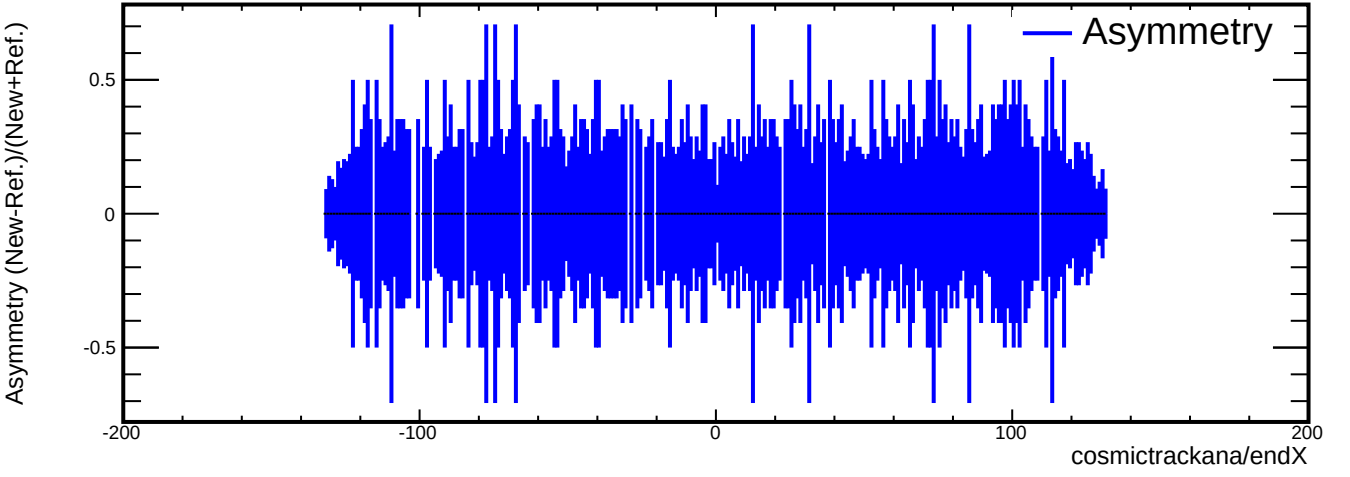

2012-08-26
2012-08-27
Events
60
40
20
0
-1
-0.5
0
0.5
1
cosmictrackana/dcosY

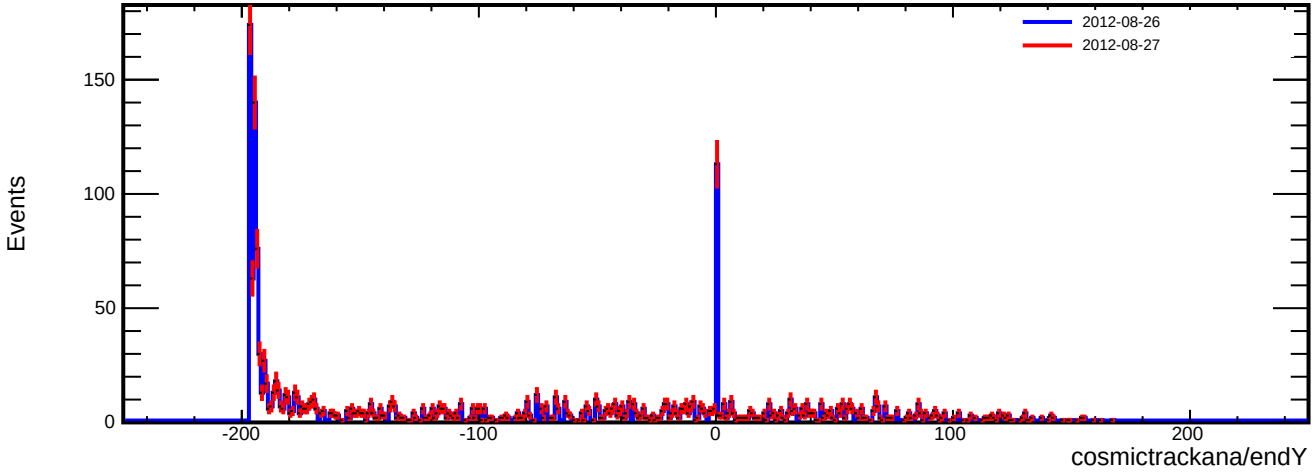

Asymmetry
Asymmetry (New-Ref.)/(New+Ref.)
0.5
0
-0.5
-1
-0.5
0
0.5
1
cosmictrackana/dcosY

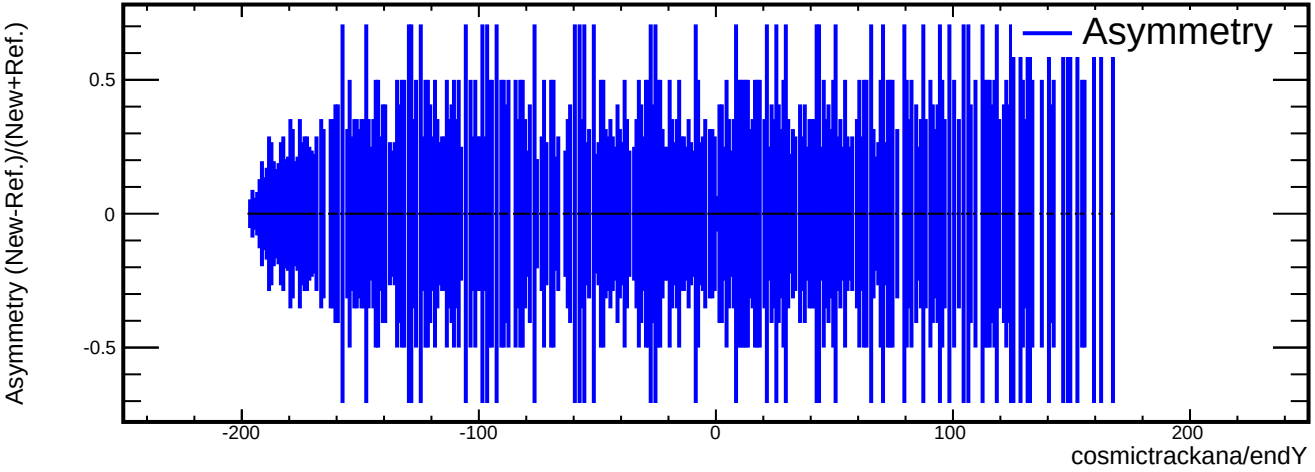

Events
2012-08-26
2012-08-27
cosmictrackana/dcosZ

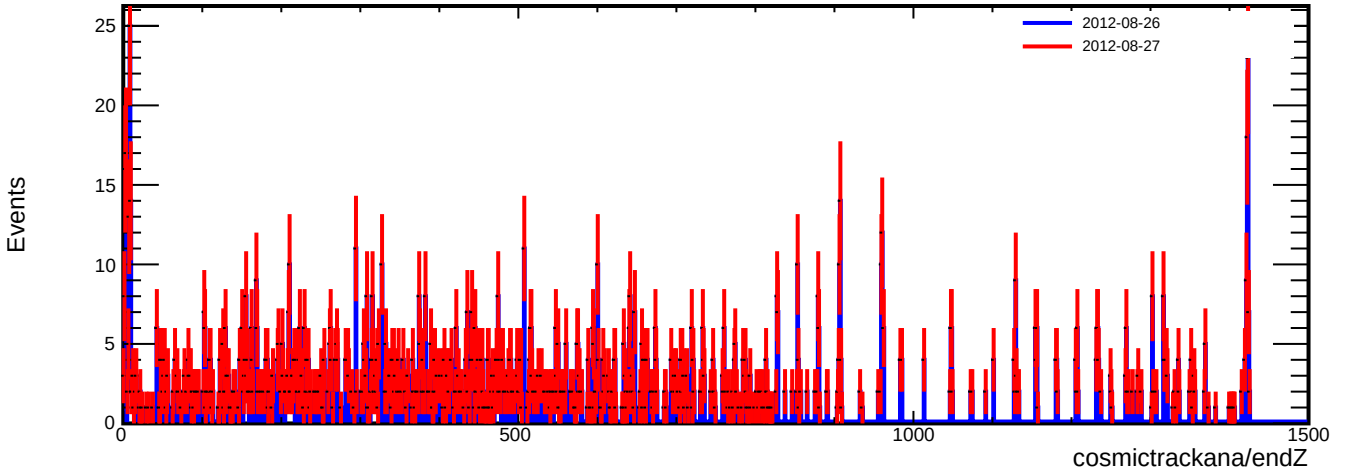

Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
cosmictrackana/dcosZ

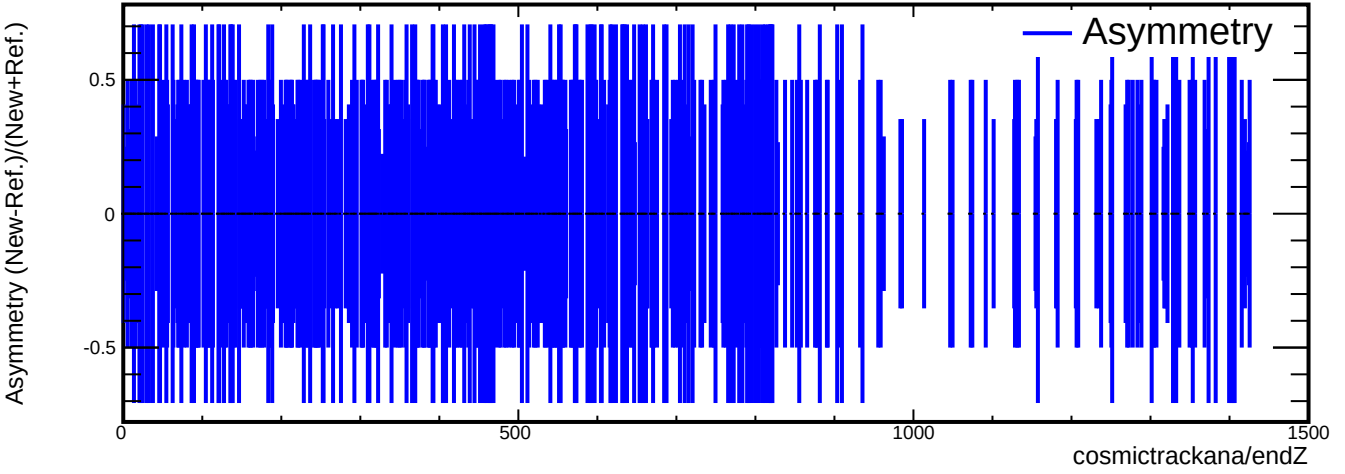

2012-08-26
2012-08-27
Events
60
40
20
0
-200
-100
0
100
200
cosmictrackana/endX

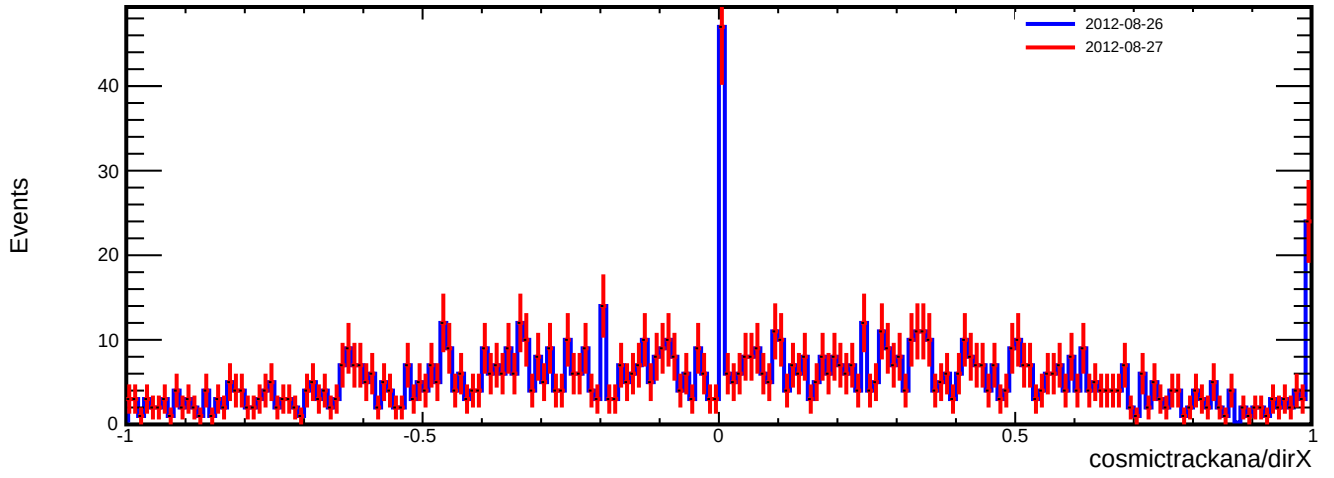

Asymmetry
Asymmetry (New-Ref.)/(New+Ref.)
0.5
0
-0.5
-200
-100
0
100
200
cosmictrackana/endX

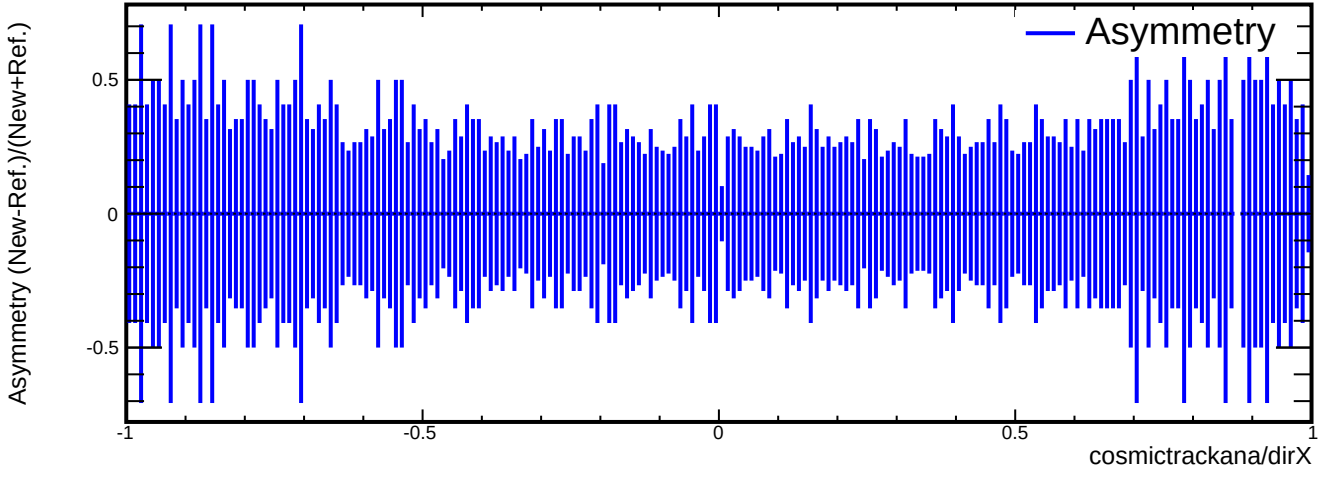

2012-08-26
2012-08-27
Events
150
100
50
0
-200
-100
0
100
200
cosmictrackana/endY

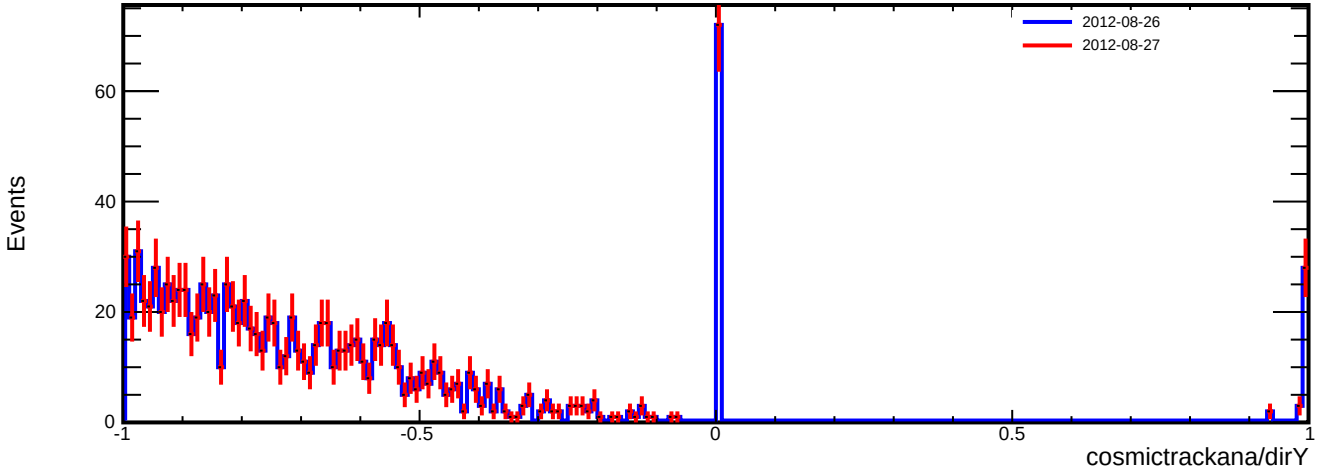

Asymmetry
Asymmetry (New-Ref.)/(New+Ref.)
0.5
0
-0.5
-200
-100
0
100
200
cosmictrackana/endY

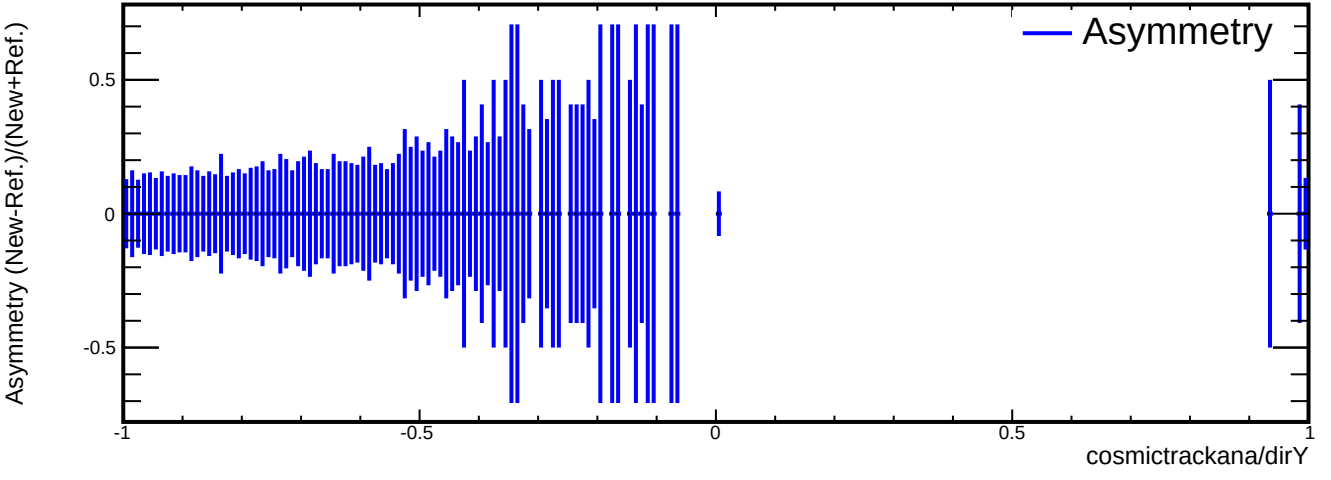

2012-08-26
2012-08-27
Events
cosmictrackana/endZ
0
5
10
15
20
25
0
500
1000
1500

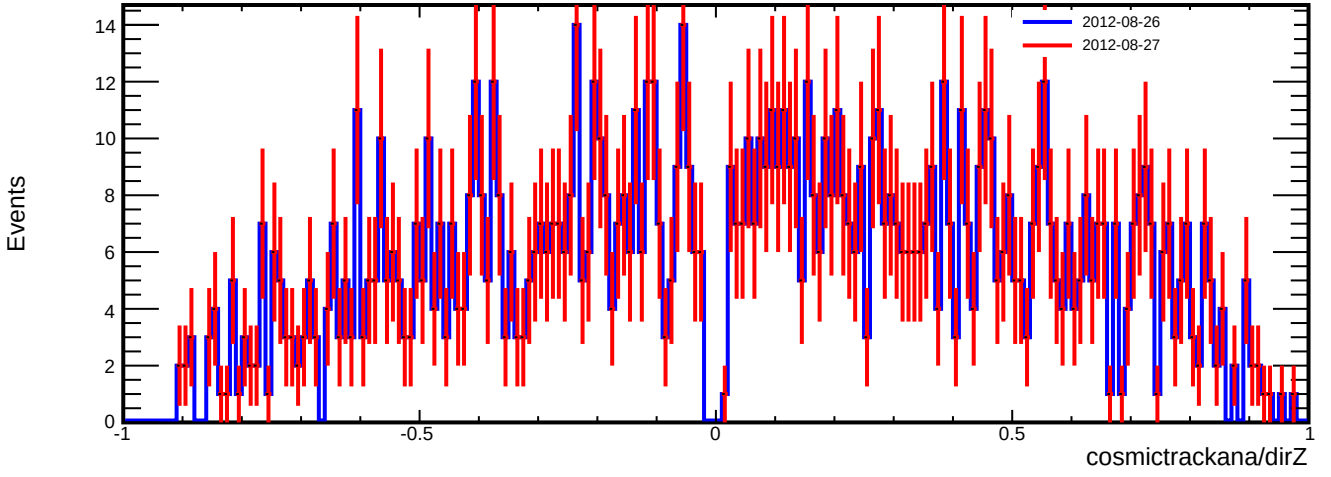

Asymmetry
Asymmetry (New-Ref.)/(New+Ref.)
cosmictrackana/endZ
0.5
0
-0.5
0
500
1000
1500

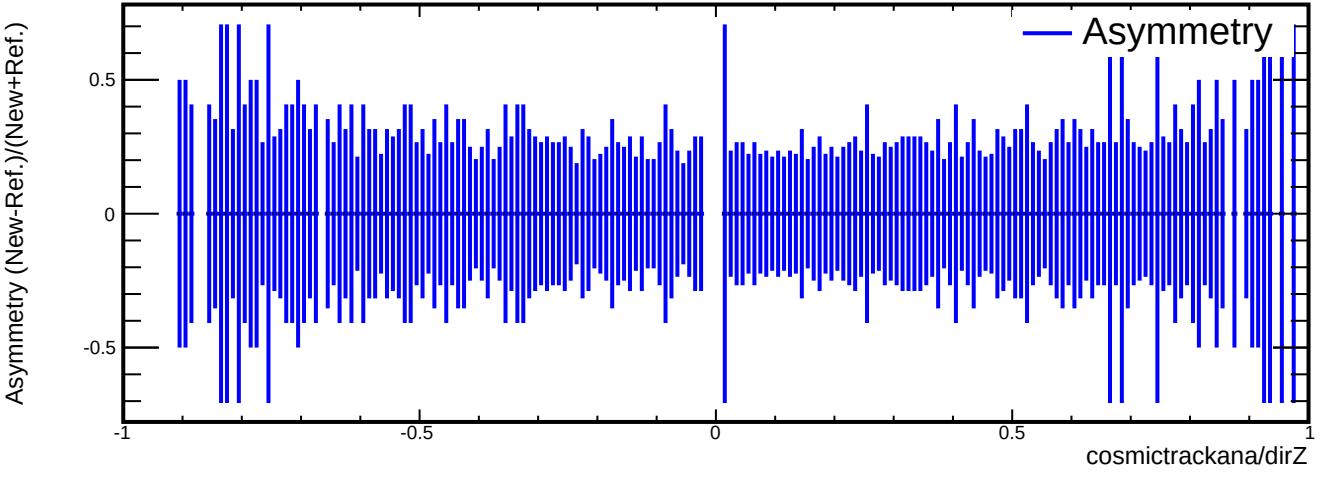

2012-08-26
2012-08-27
Events
0
10
20
30
40
-1
-0.5
0
0.5
1
cosmictrackana/dirX

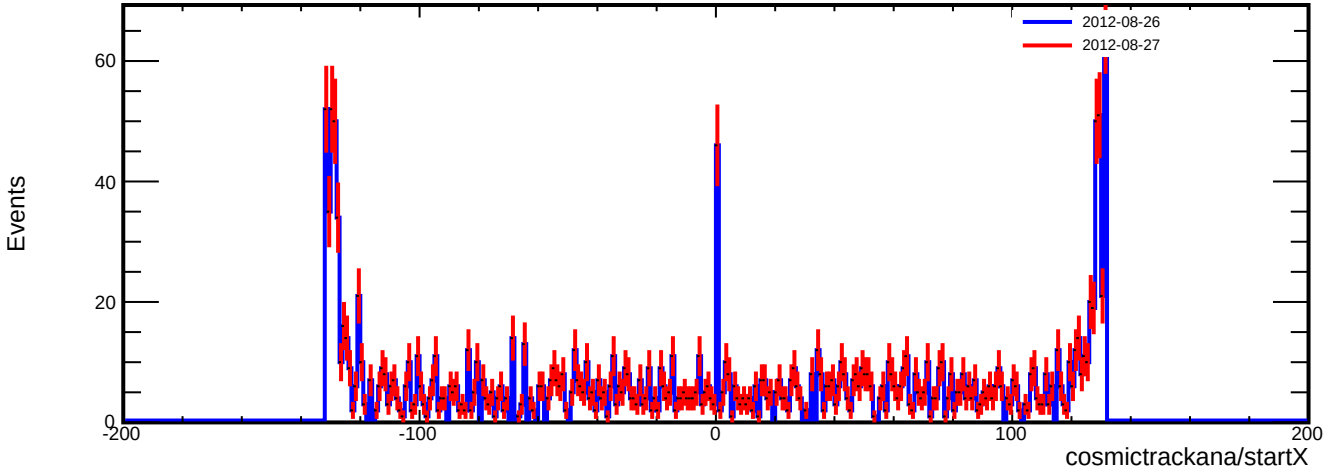

Asymmetry
Asymmetry (New-Ref.)/(New+Ref.)
0.5
0
-0.5
-1
-0.5
0
0.5
1
cosmictrackana/dirX

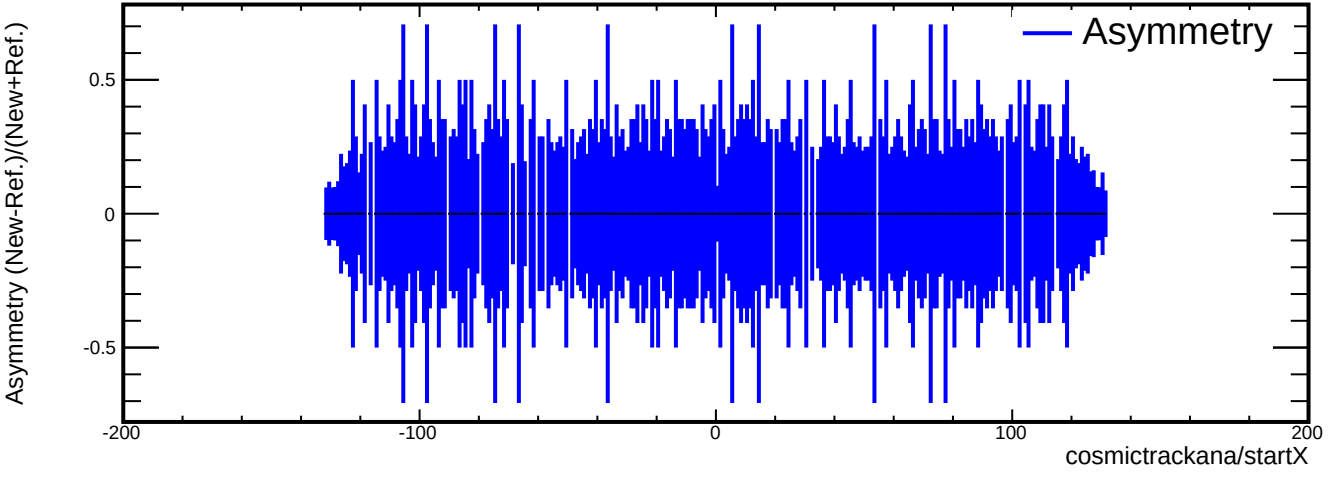

2012-08-26
2012-08-27
Events
0
20
40
60
-1
-0.5
0
0.5
1
cosmictrackana/dirY

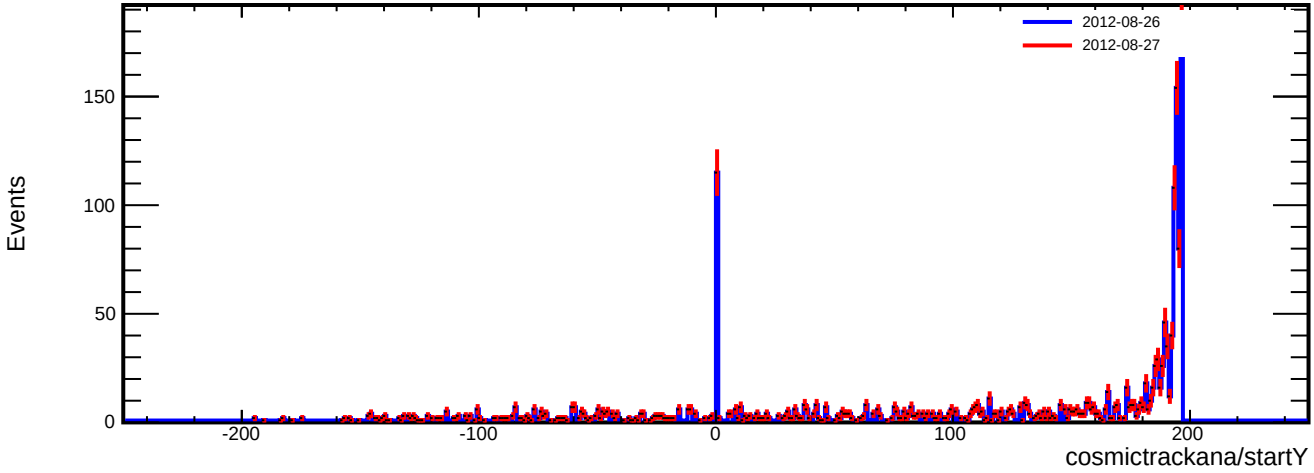

Asymmetry
Asymmetry (New-Ref.)/(New+Ref.)
0.5
0
-0.5
-1
-0.5
0
0.5
1
cosmictrackana/dirY

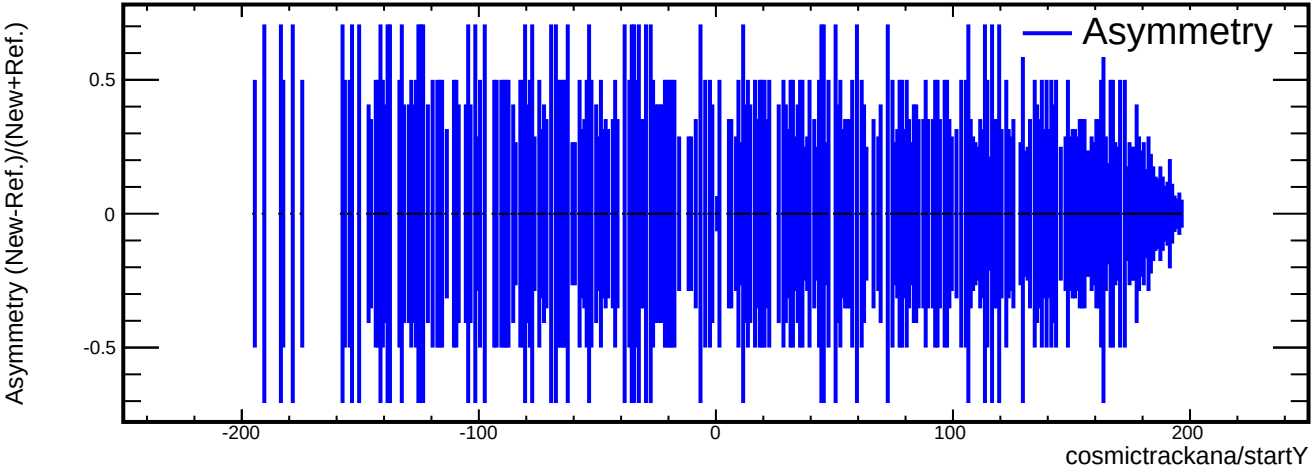

Events
2012-08-26
2012-08-27
cosmictrackana/dirZ

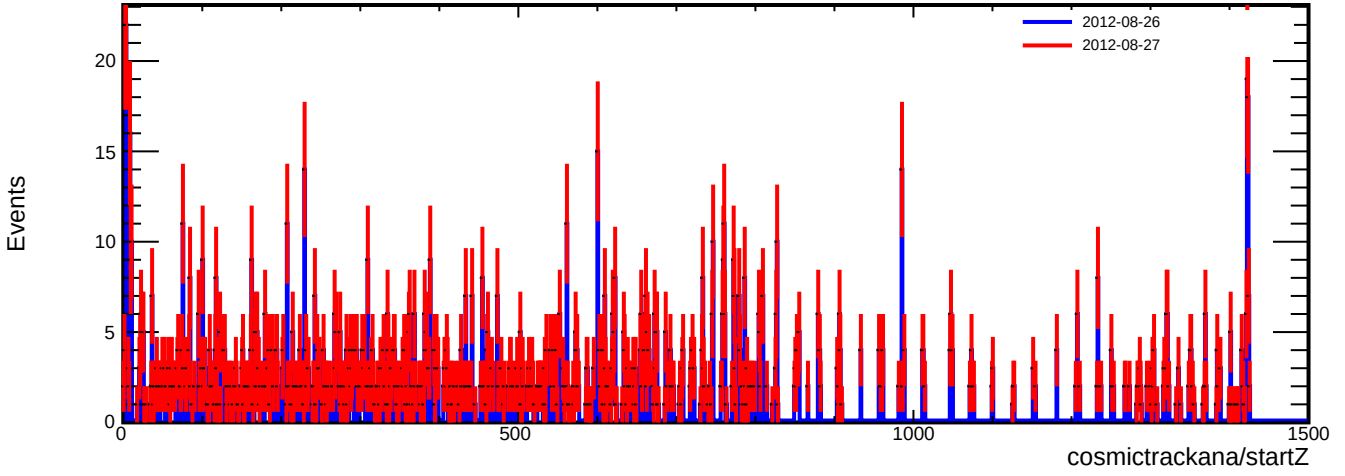

Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
cosmictrackana/dirZ

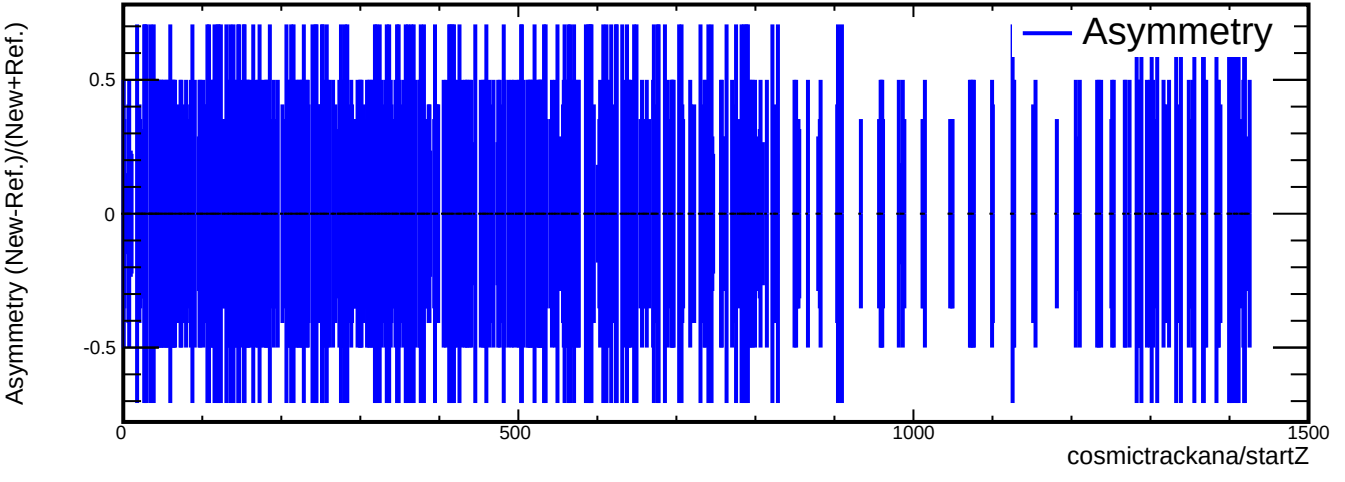

2012-08-26
2012-08-27
Events
60
40
20
0
-200
-100
0
100
200
cosmictrackana/startX

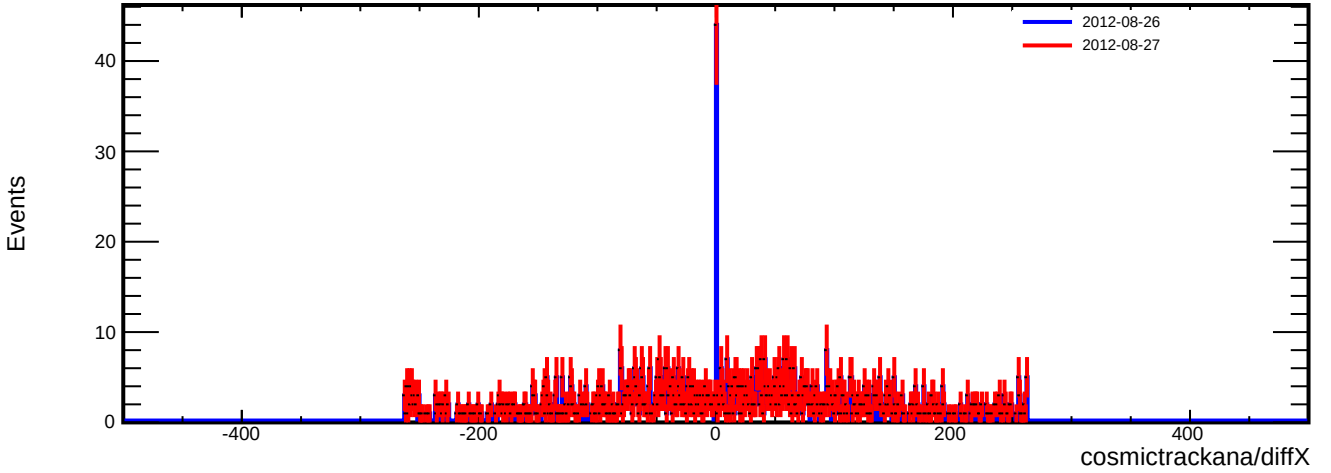

Asymmetry
Asymmetry (New-Ref.)/(New+Ref.)
0.5
0
-0.5
-200
-100
0
100
200
cosmictrackana/startX

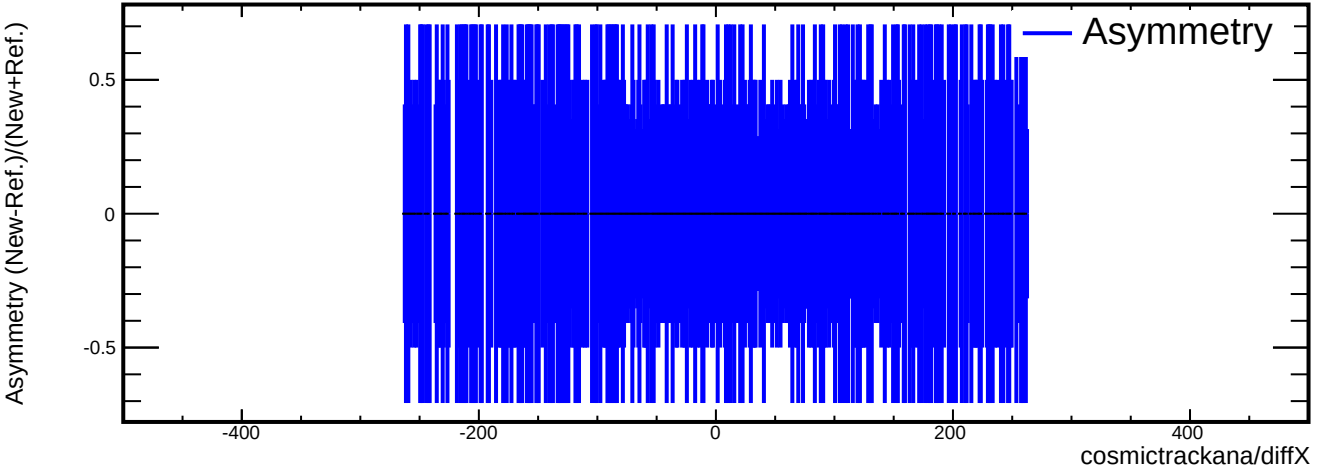

2012-08-26
2012-08-27
Events
150
100
50
0
-200
-100
0
100
200
cosmictrackana/startY

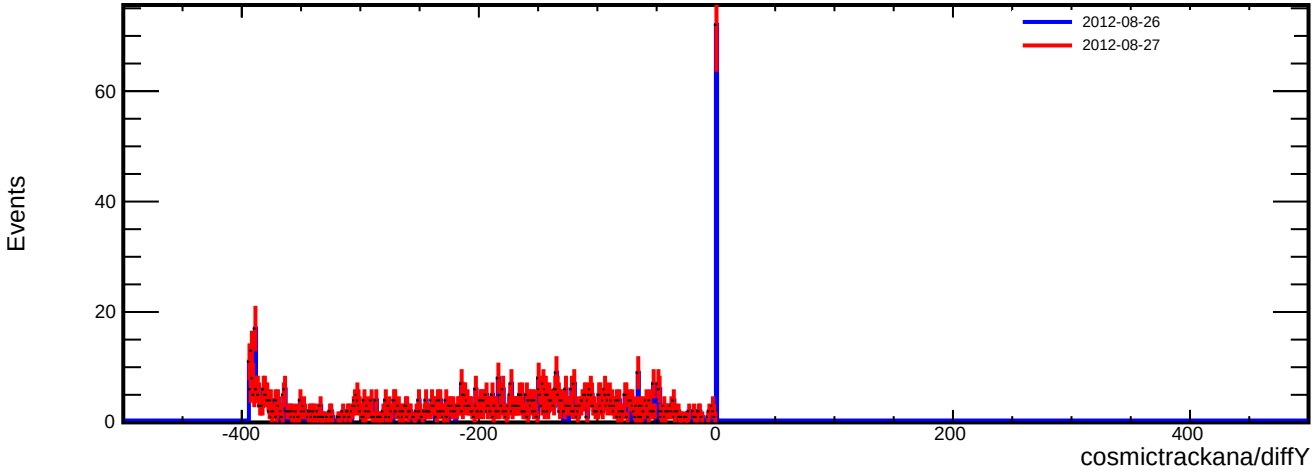

Asymmetry
Asymmetry (New-Ref.)/(New+Ref.)
0.5
0
-0.5
-200
-100
0
100
200
cosmictrackana/startY

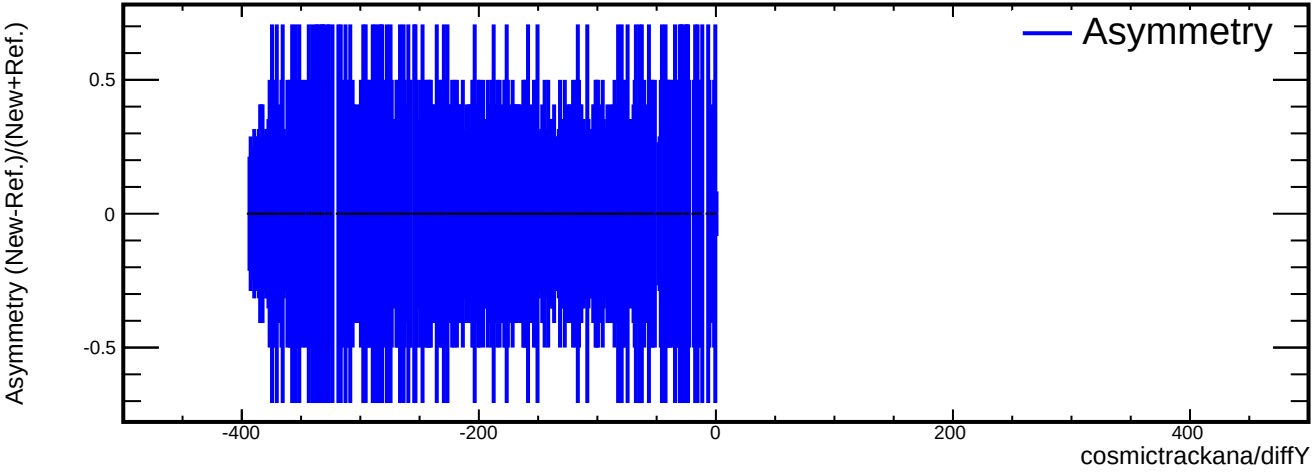

2012-08-26
2012-08-27
Events
0
5
10
15
20
0
500
1000
1500
cosmictrackana/startZ

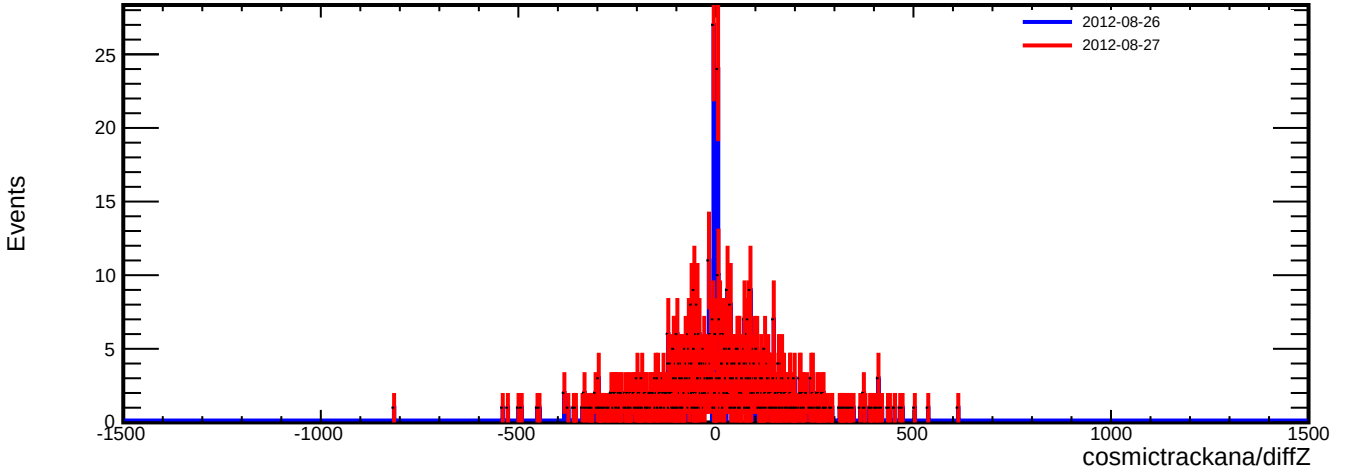

Asymmetry
Asymmetry (New-Ref.)/(New+Ref.)
0.5
0
-0.5
0
500
1000
1500
cosmictrackana/startZ

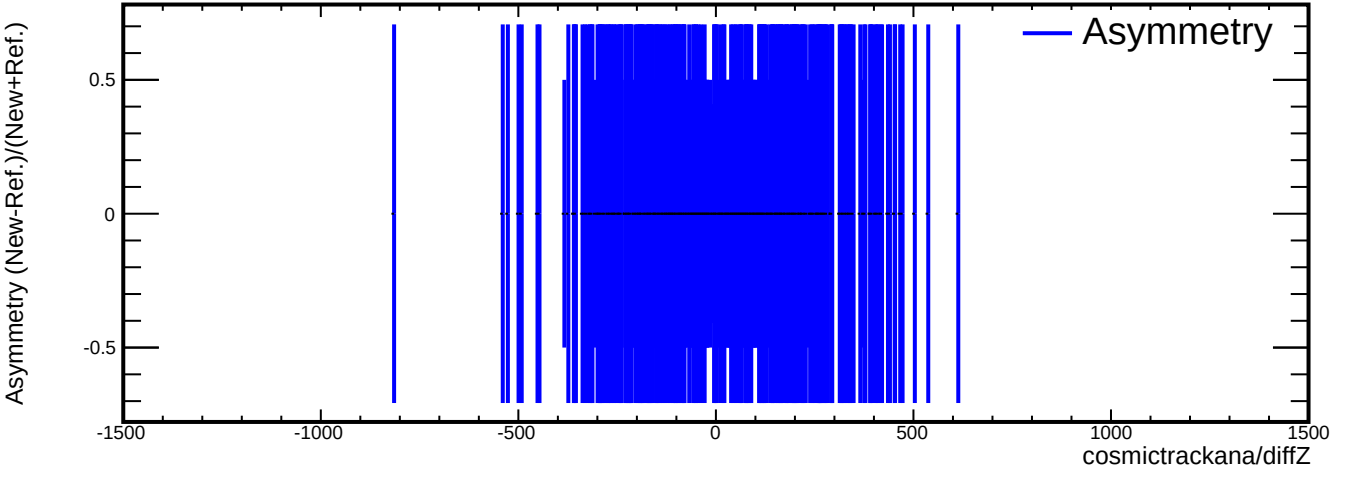

2012-08-26
2012-08-27
Events
0
10
20
30
40
-400
-200
0
200
400
cosmictrackana/diffX

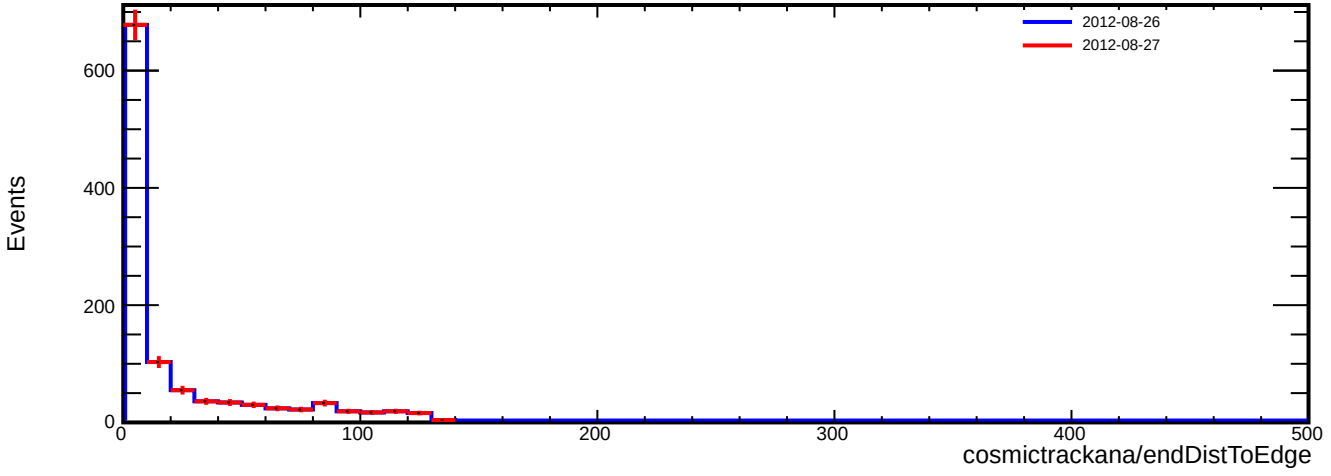

Asymmetry
Asymmetry (New-Ref.)/(New+Ref.)
0.5
0
-0.5
-400
-200
0
200
400
cosmictrackana/diffX

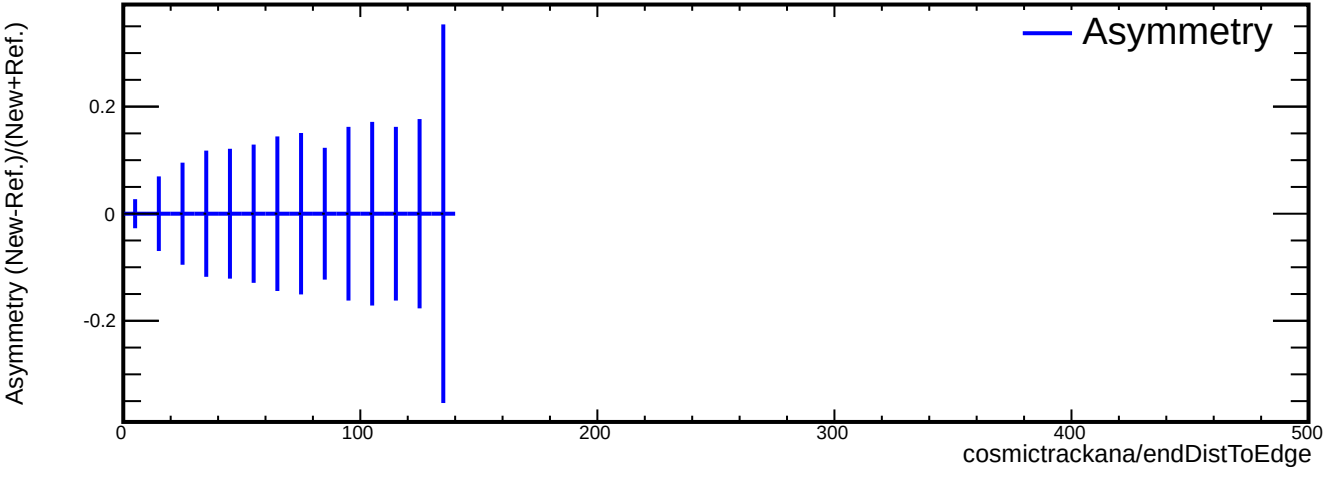

2012-08-26
2012-08-27
Events
0
20
40
60
-400
-200
0
200
400
cosmictrackana/diffY

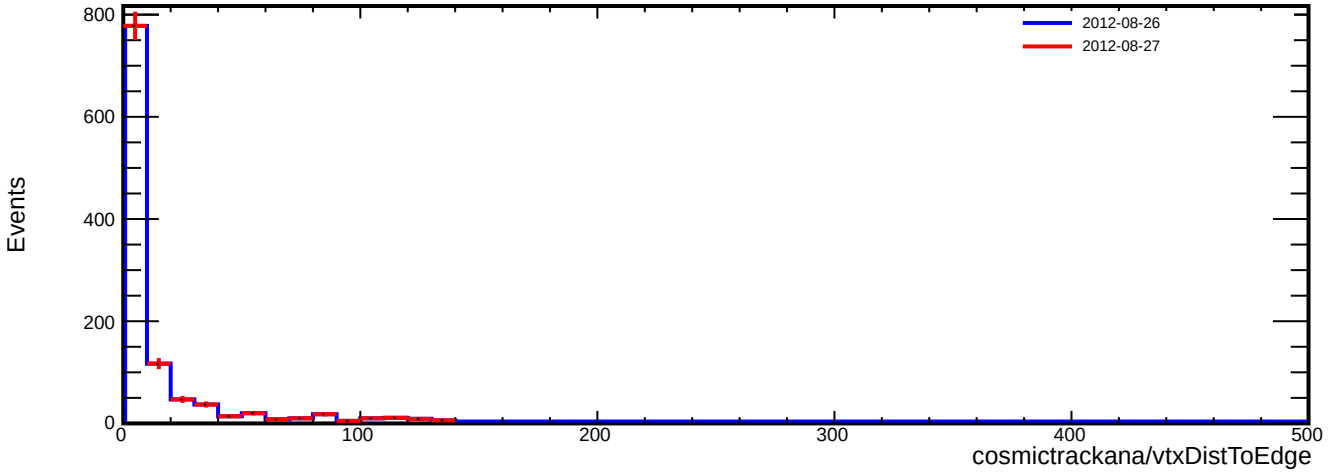

Asymmetry
Asymmetry (New-Ref.)/(New+Ref.)
0.5
0
-0.5
-400
-200
0
200
400
cosmictrackana/diffY

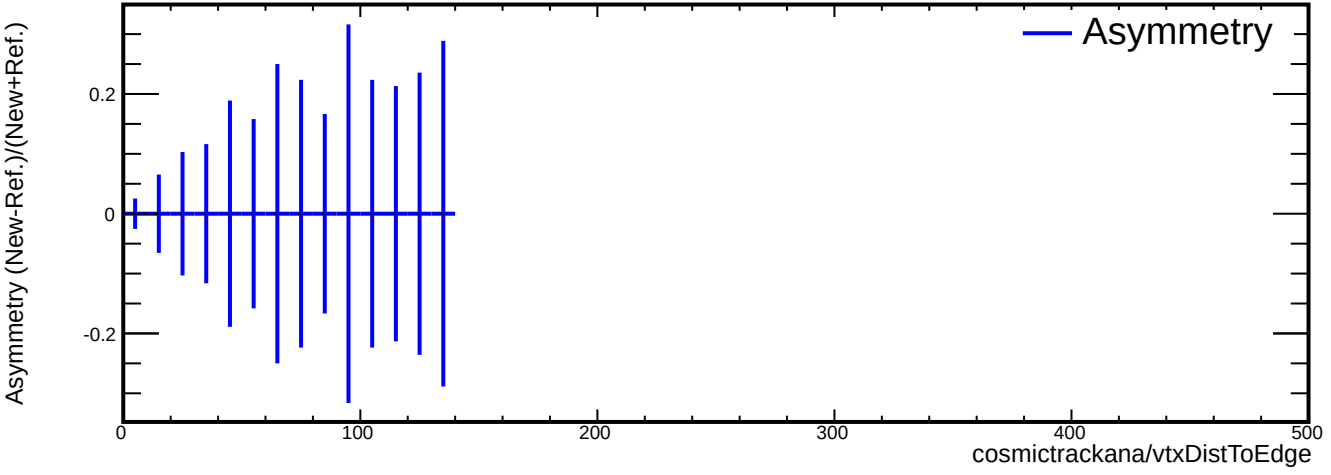

2012-08-26
2012-08-27
Events
0
5
10
15
20
25
-1500
-1000
-500
0
500
1000
1500
cosmictrackana/diffZ

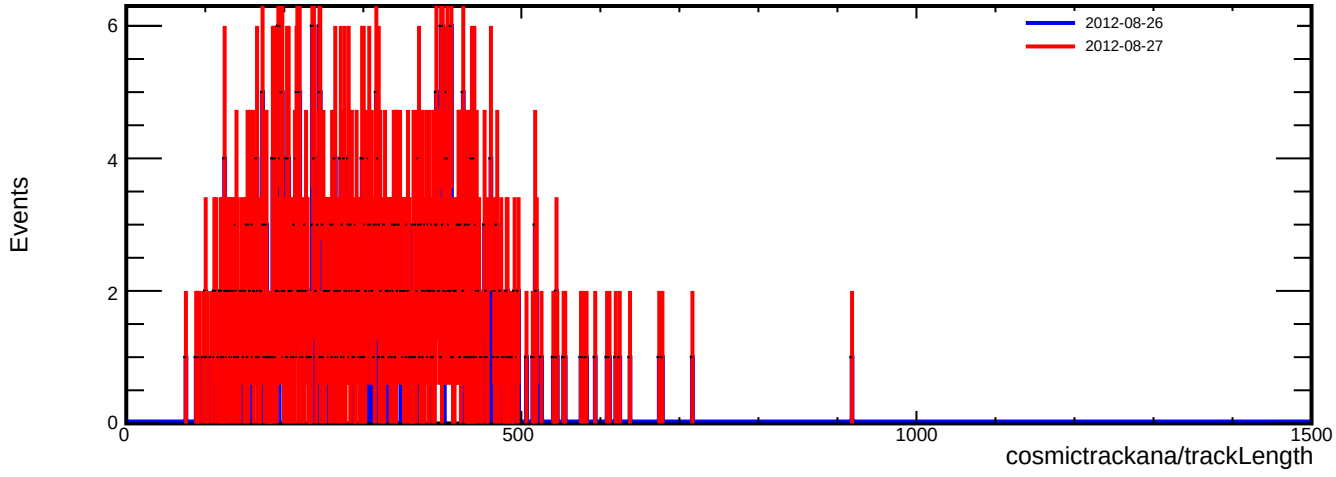

Asymmetry
Asymmetry (New-Ref.)/(New+Ref.)
0.5
0
-0.5
-1500
-1000
-500
0
500
1000
1500
cosmictrackana/diffZ

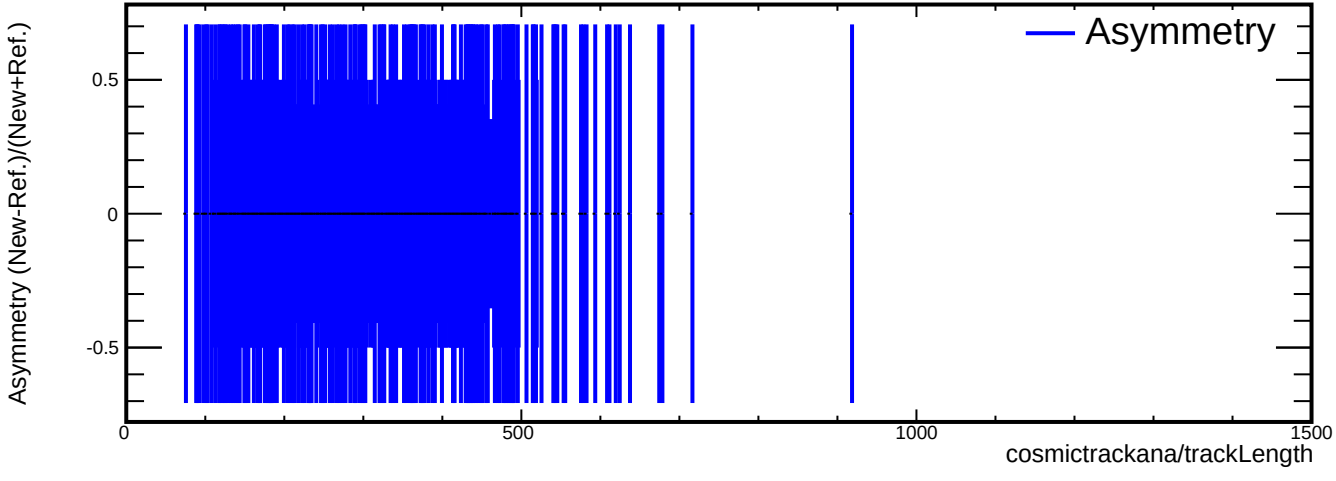

2012-08-26
2012-08-27
Events
600
400
200
0
0
100
200
300
400
500
cosmictrackana/endDistToEdge

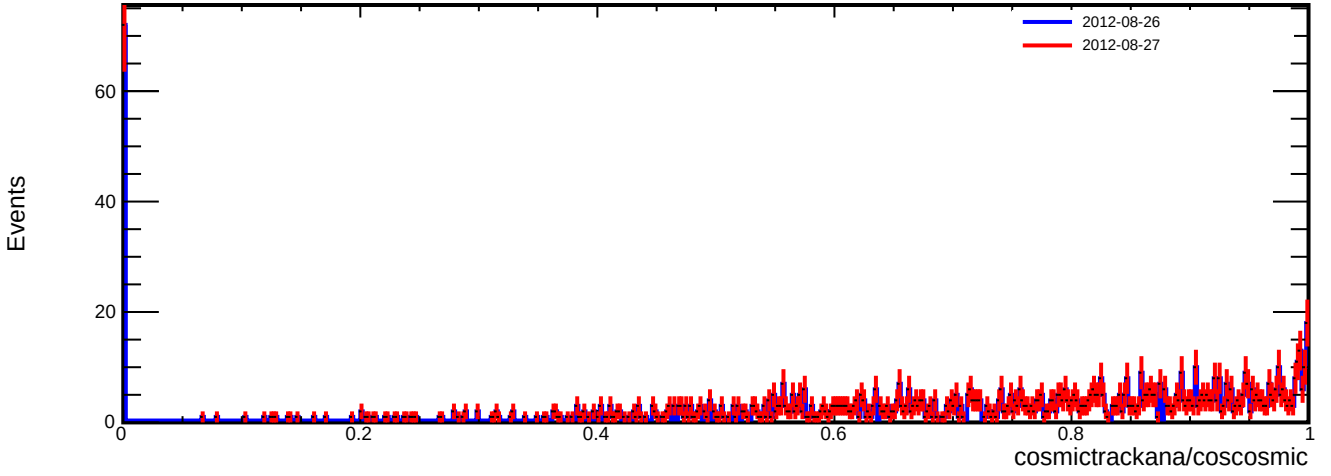

Asymmetry
Asymmetry (New-Ref.)/(New+Ref.)
0.2
0
-0.2
0
100
200
300
400
500
cosmictrackana/endDistToEdge

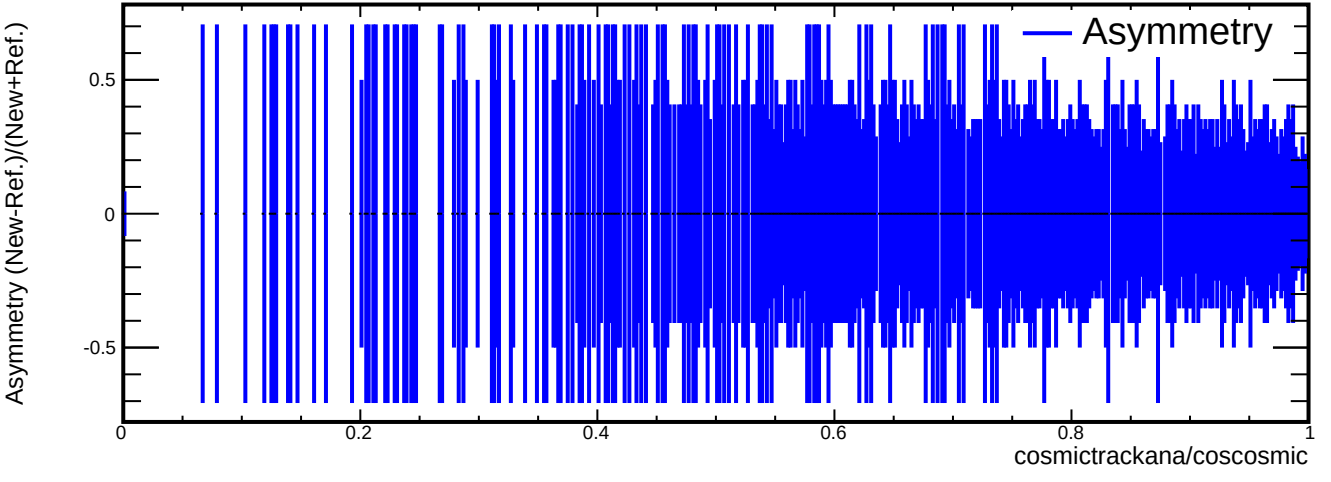

Events
800
600
400
200
0
0
100
200
300
400
500
cosmictrackana/vtxDistToEdge
2012-08-26
2012-08-27

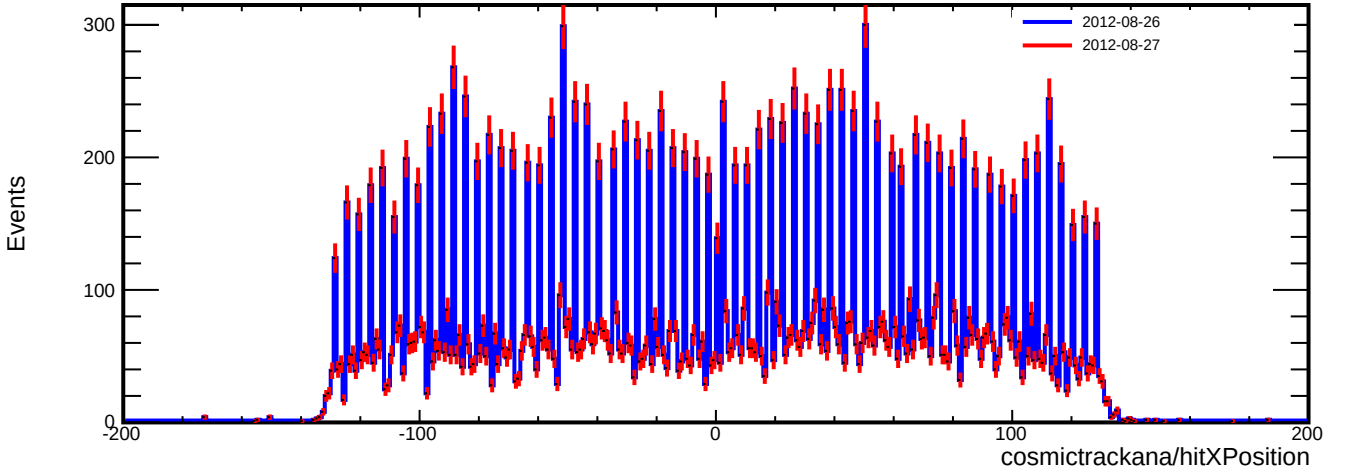

Asymmetry (New-Ref.)/(New+Ref.)
0.2
0
-0.2
0
100
200
300
400
500
cosmictrackana/vtxDistToEdge
Asymmetry

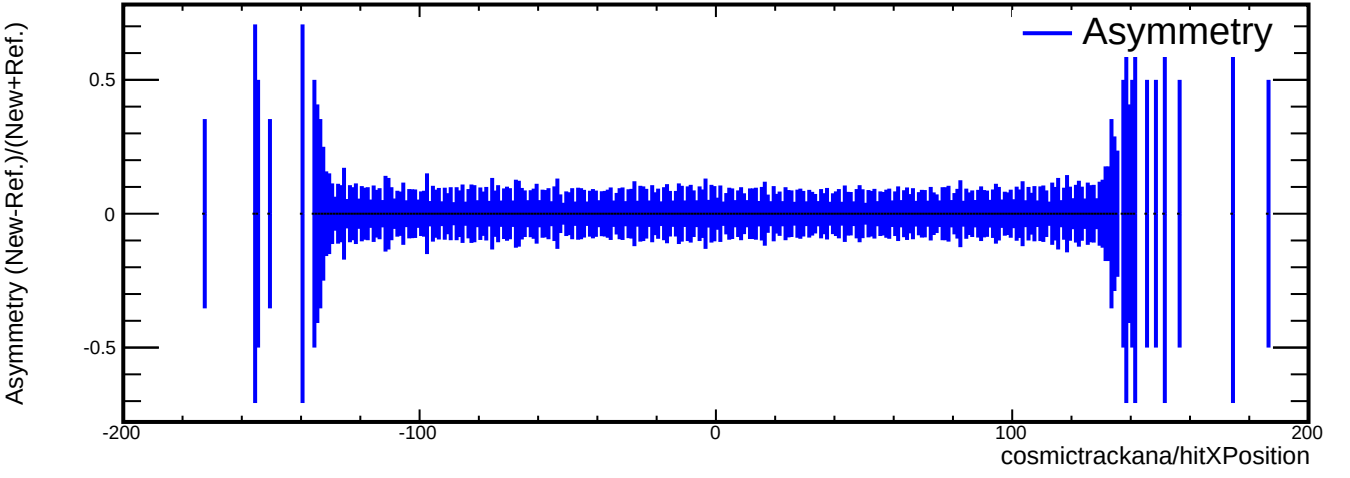

2012-08-26
2012-08-27
Events
0
2
4
6
0
500
1000
1500
cosmictrackana/trackLength

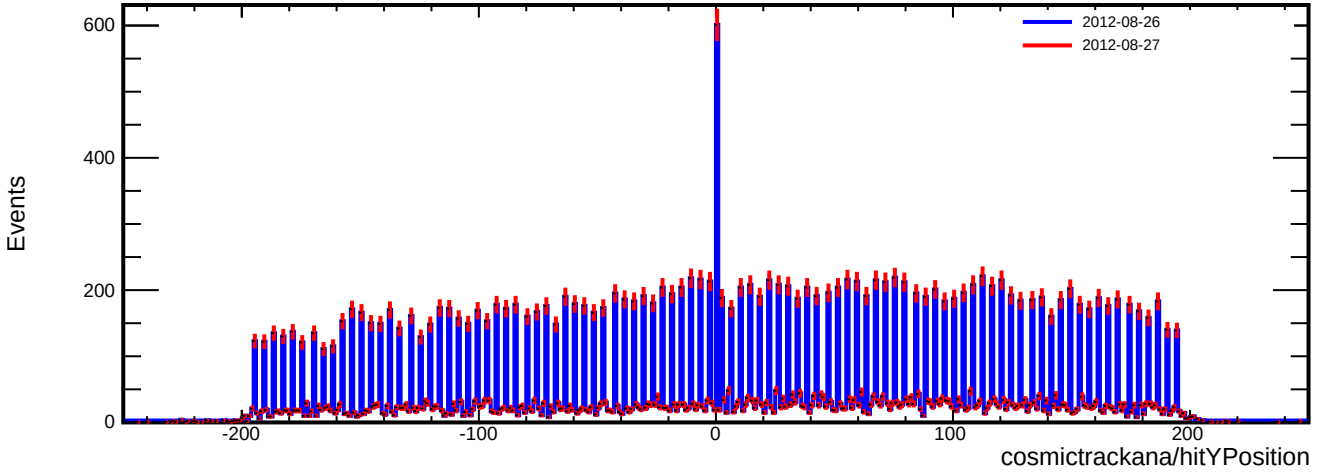

Asymmetry
Asymmetry (New-Ref.)/(New+Ref.)
0.5
0
-0.5
0
500
1000
1500
cosmictrackana/trackLength

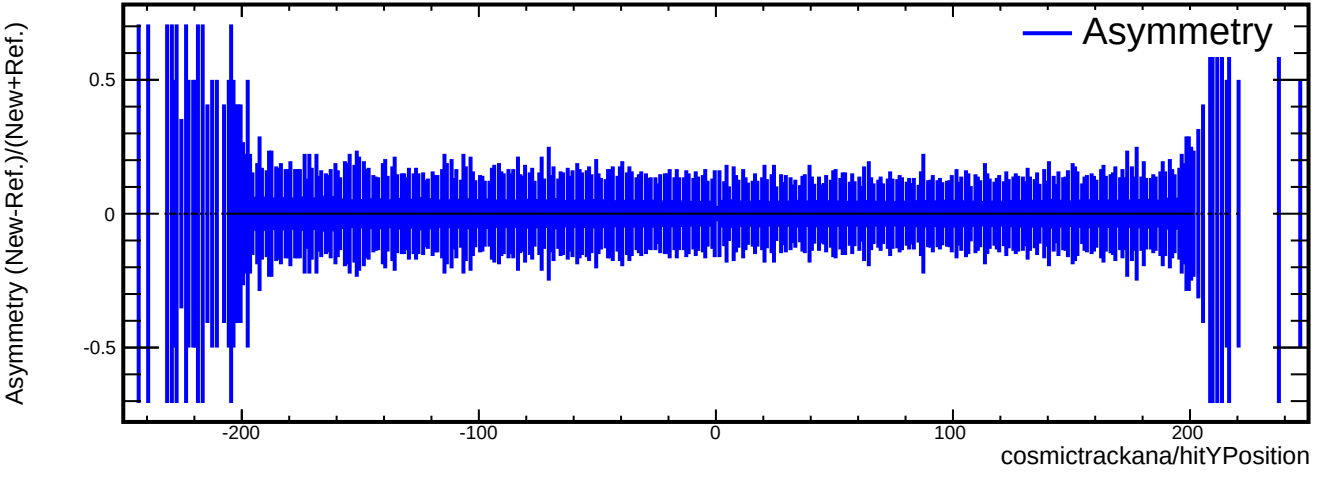

2012-08-26
2012-08-27
Events
60
40
20
0
0
0.2
0.4
0.6
0.8
1
cosmictrackana/coscosmic

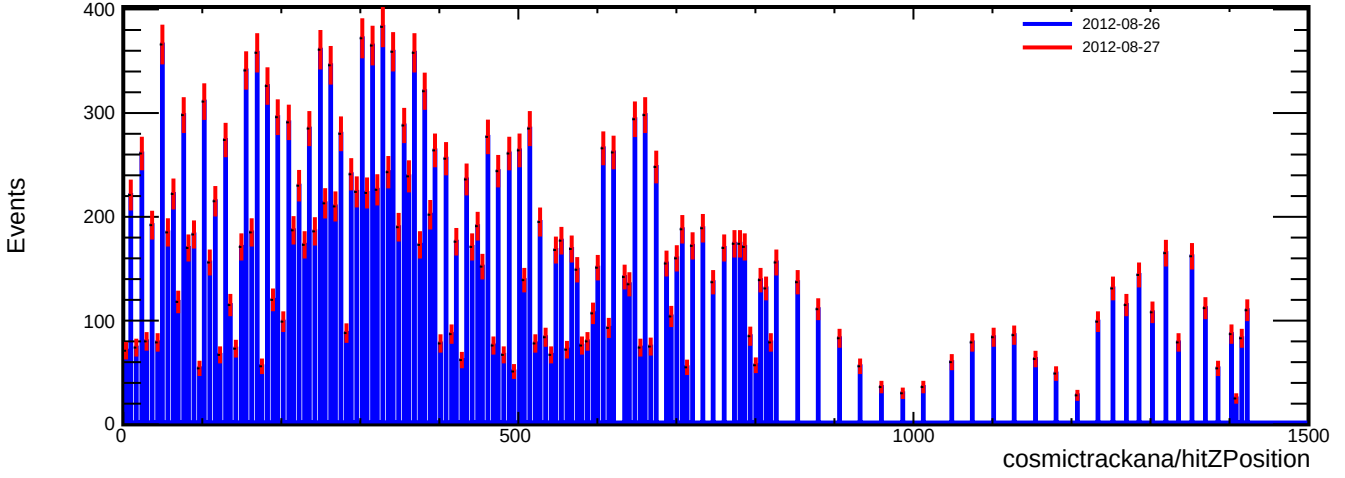

Asymmetry
Asymmetry (New-Ref.)/(New+Ref.)
0.5
0
-0.5
0
0.2
0.4
0.6
0.8
1
cosmictrackana/coscosmic

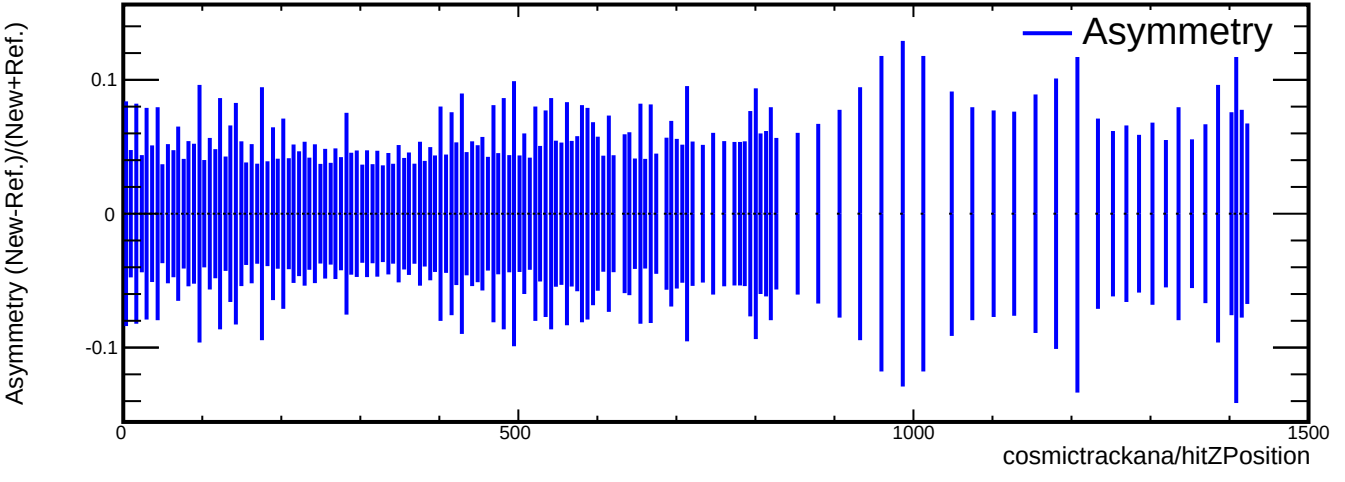

2012-08-26
2012-08-27
Events
300
200
100
0
-200
-100
0
100
200
cosmictrackana/hitXPosition

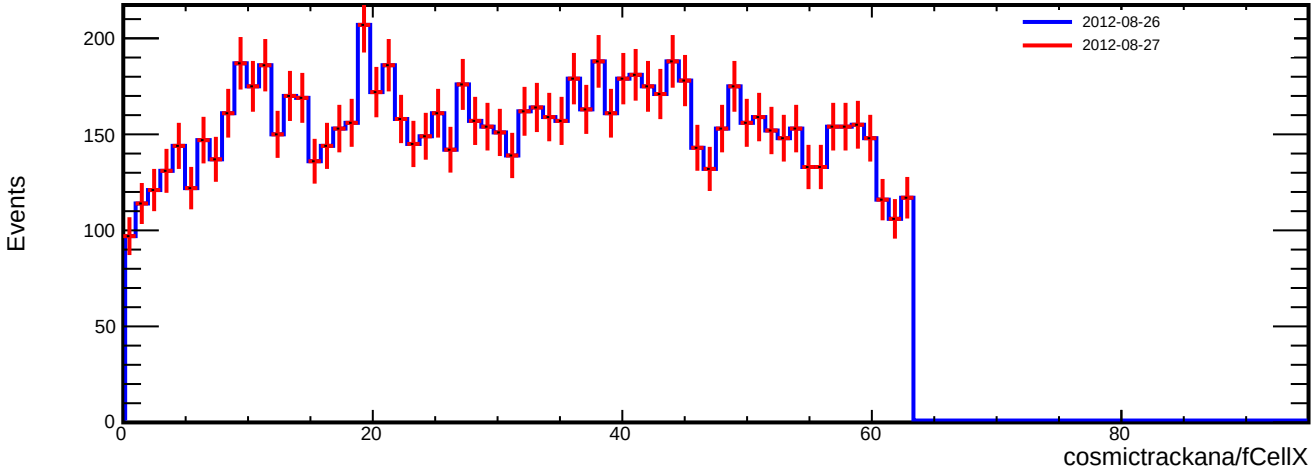

Asymmetry
Asymmetry (New-Ref.)/(New+Ref.)
0.5
0
-0.5
-200
-100
0
100
200
cosmictrackana/hitXPosition

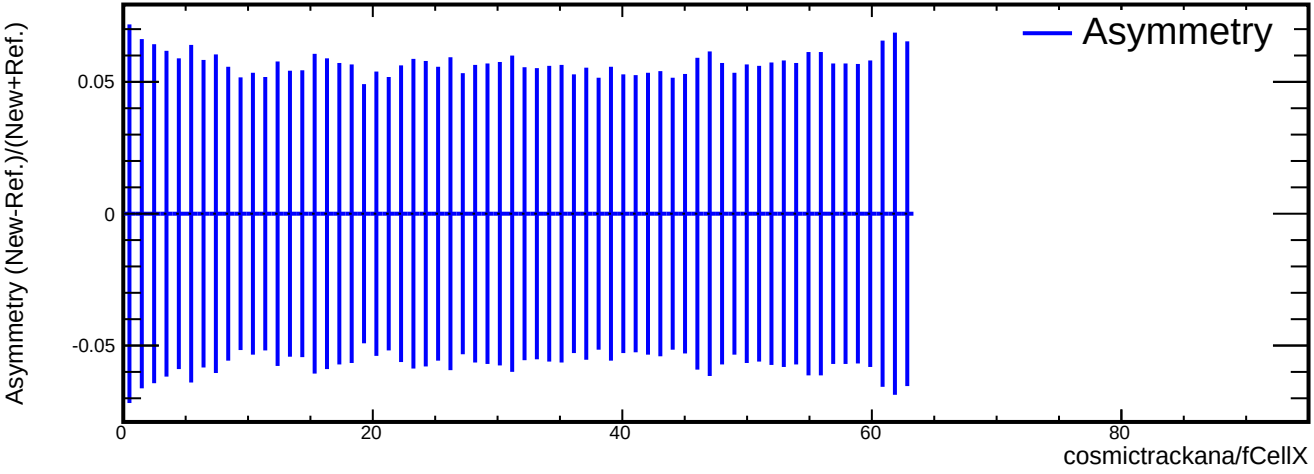

2012-08-26
2012-08-27
Events
600
400
200
0
-200
-100
0
100
200
cosmictrackana/hitYPosition

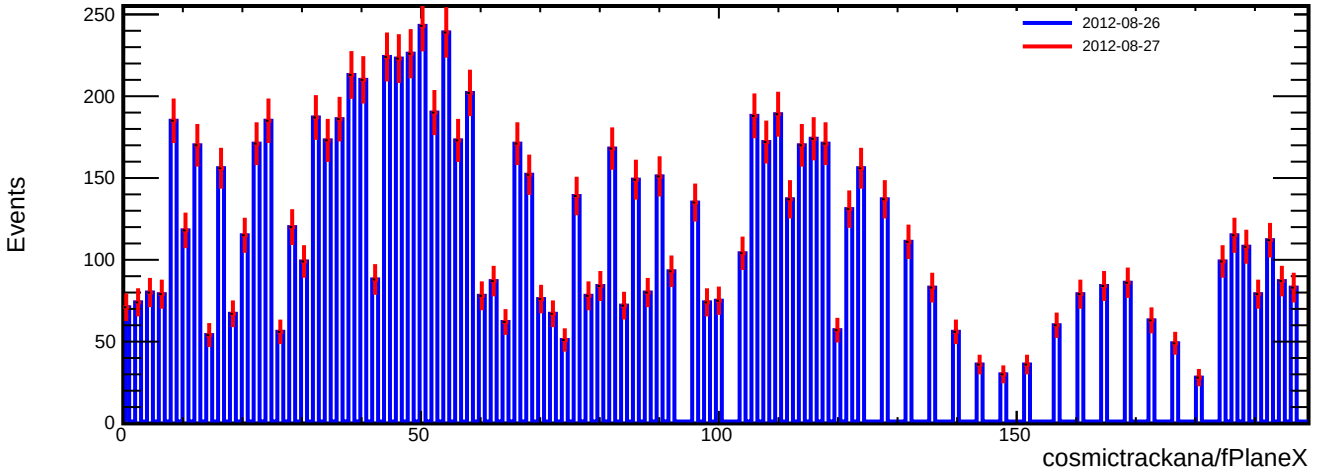

Asymmetry
Asymmetry (New-Ref.)/(New+Ref.)
0.5
0
-0.5
-200
-100
0
100
200
cosmictrackana/hitYPosition

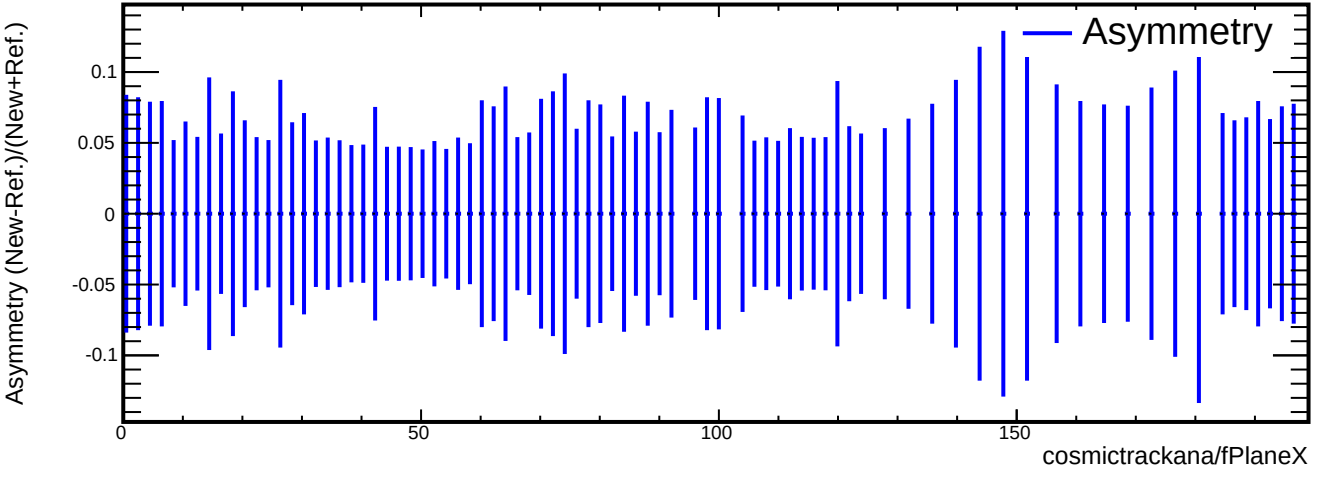

Events
400
300
200
100
0
0
500
1000
1500
cosmictrackana/hitZPosition
2012-08-26
2012-08-27

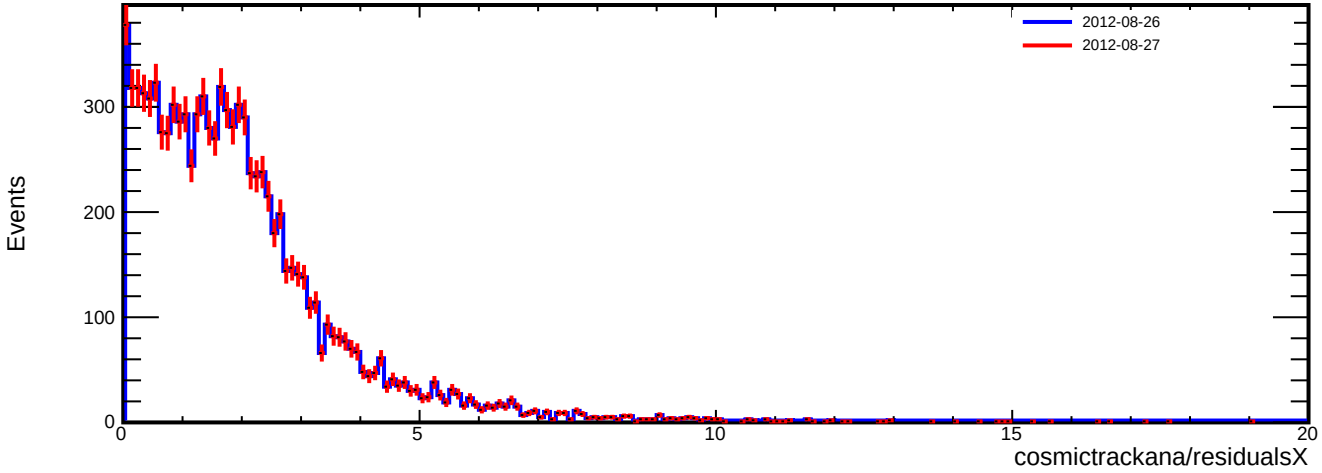

Asymmetry (New-Ref.)/(New+Ref.)
0.1
0
-0.1
0
500
1000
1500
cosmictrackana/hitZPosition
Asymmetry

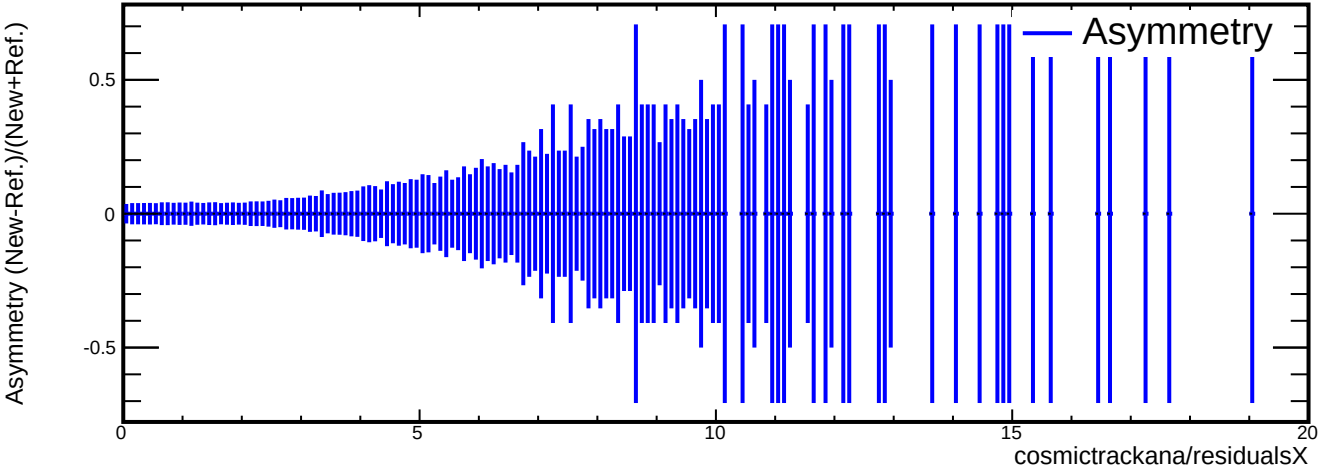

2012-08-26
2012-08-27
Events
0
50
100
150
200
0
20
40
60
80
cosmictrackana/fCellX

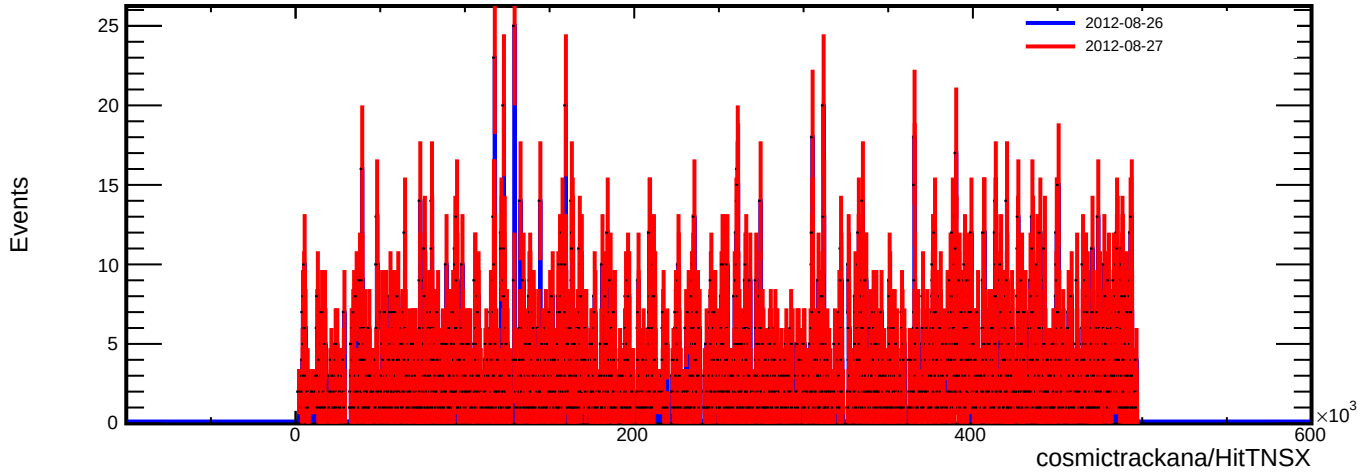

Asymmetry
Asymmetry (New-Ref.)/(New+Ref.)
0.05
0
-0.05
0
20
40
60
80
cosmictrackana/fCellX

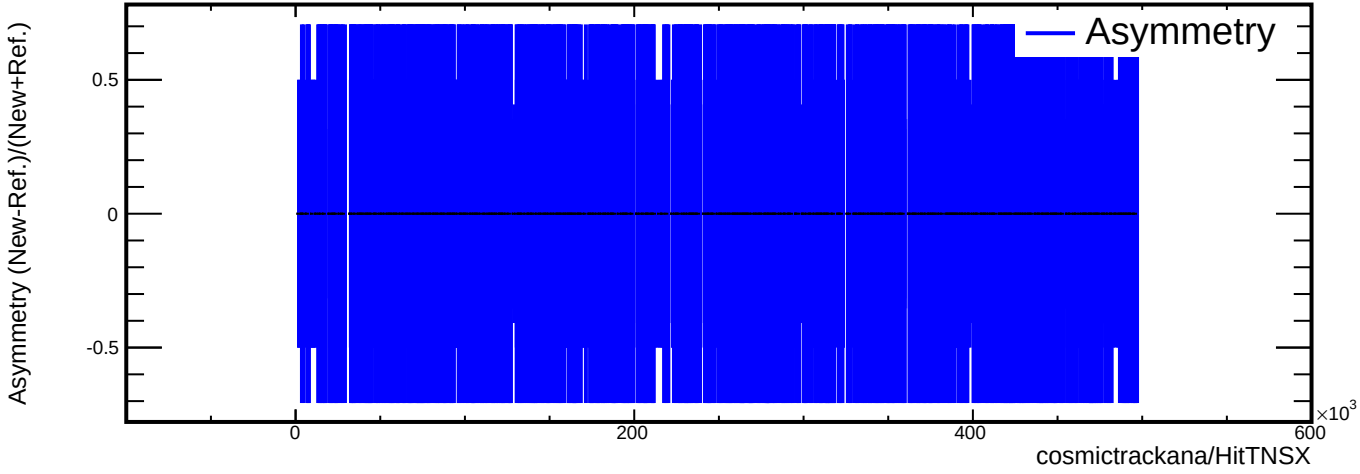

2012-08-26
2012-08-27
Events
cosmictrackana/fPlaneX

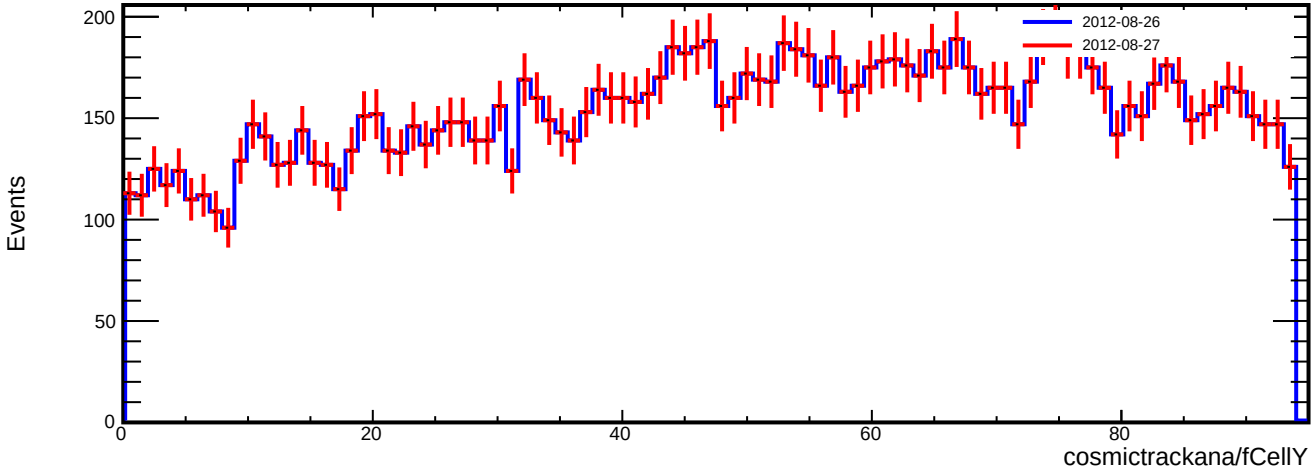

Asymmetry
Asymmetry (New-Ref.)/(New+Ref.)
cosmictrackana/fPlaneX

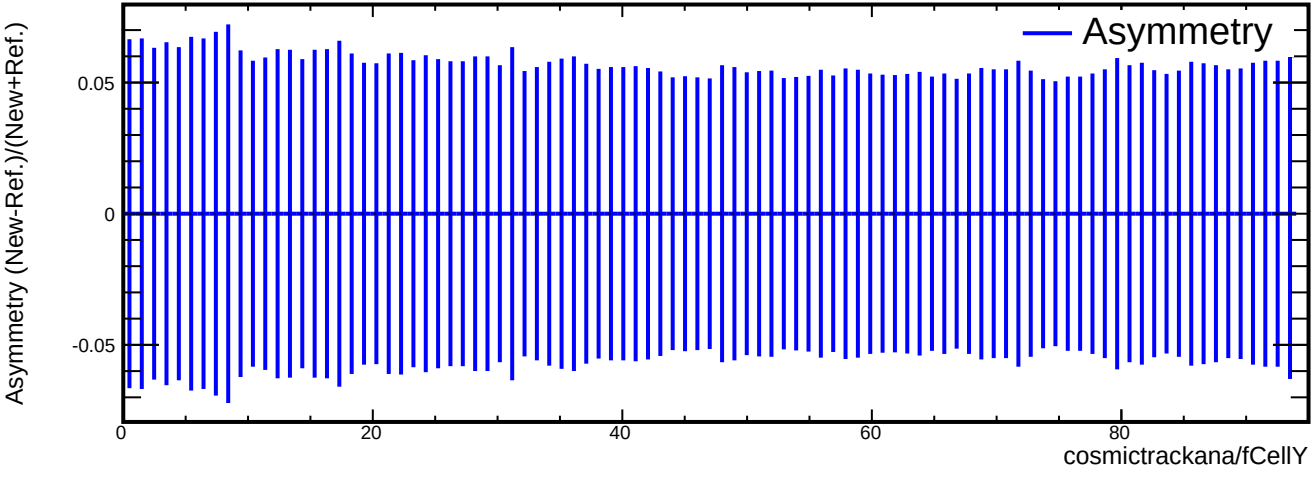

2012-08-26
2012-08-27
Events
300
200
100
0
0
5
10
15
20
cosmictrackana/residualsX

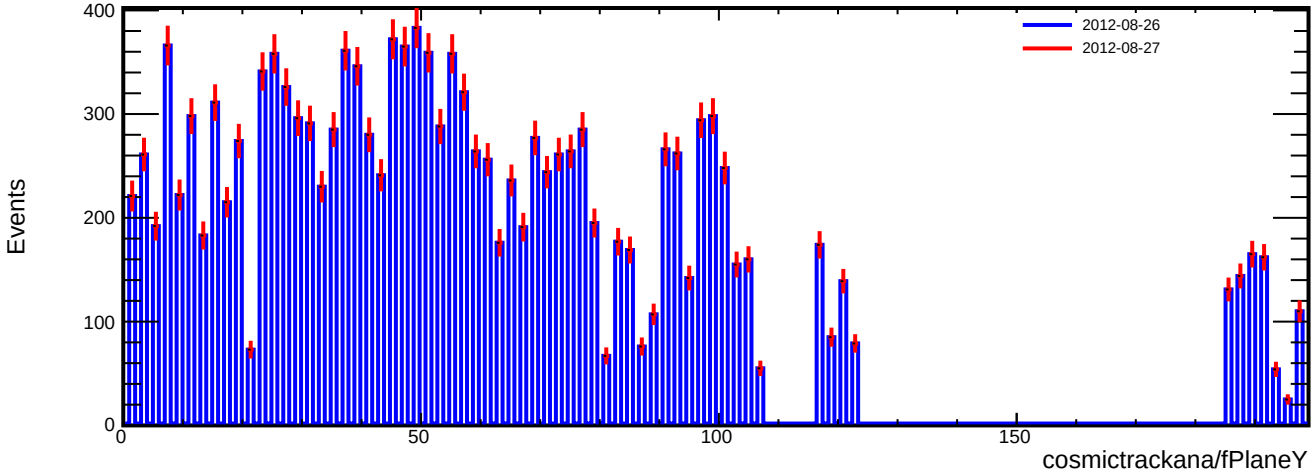

Asymmetry
Asymmetry (New-Ref.)/(New+Ref.)
0.5
0
-0.5
0
5
10
15
20
cosmictrackana/residualsX

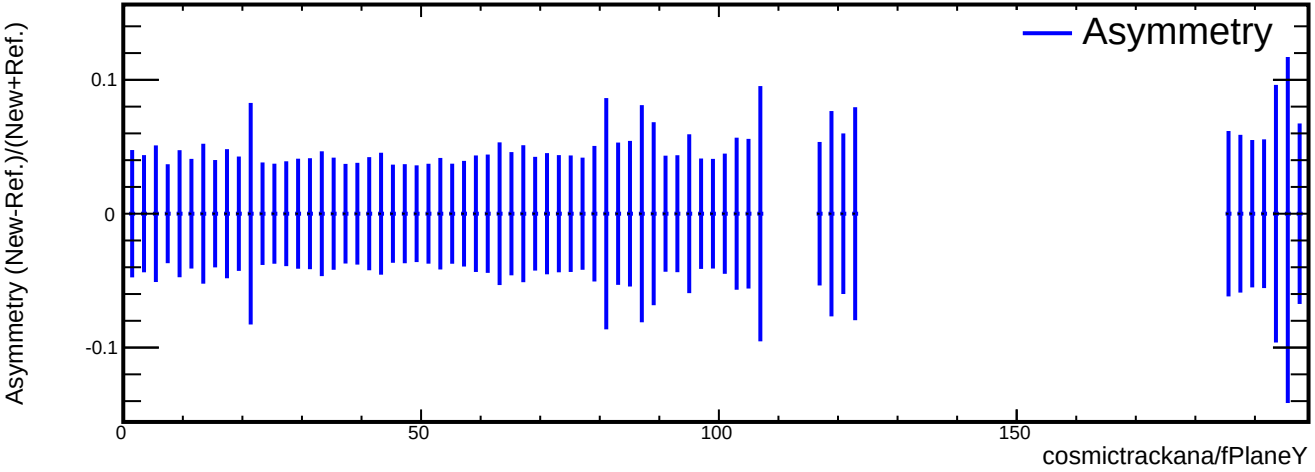

2012-08-26
2012-08-27
Events
25
20
15
10
5
0
0
200
400
600
×10^3
cosmictrackana/HitTNSX

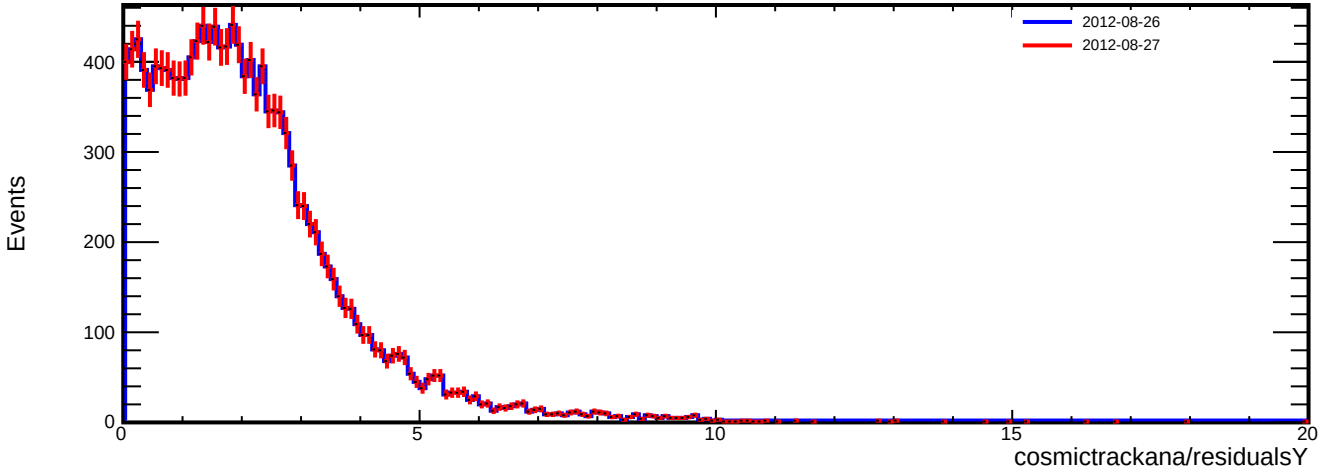

Asymmetry
Asymmetry (New-Ref.)/(New+Ref.)
0.5
0
-0.5
0
200
400
600
×10^3
cosmictrackana/HitTNSX

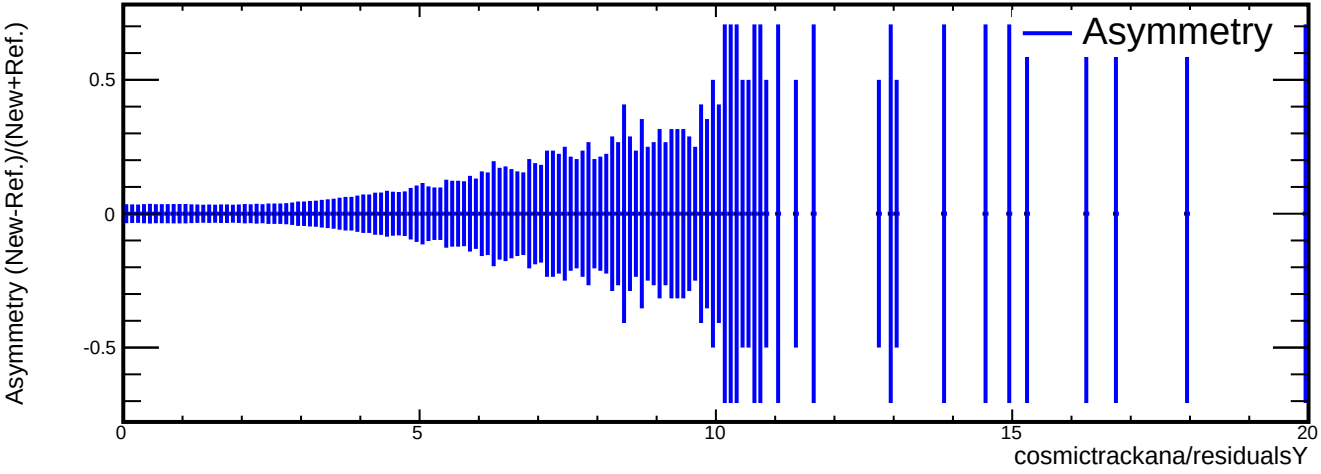

2012-08-26
2012-08-27
Events
200
150
100
50
0
0
20
40
60
80
cosmictrackana/fCellY

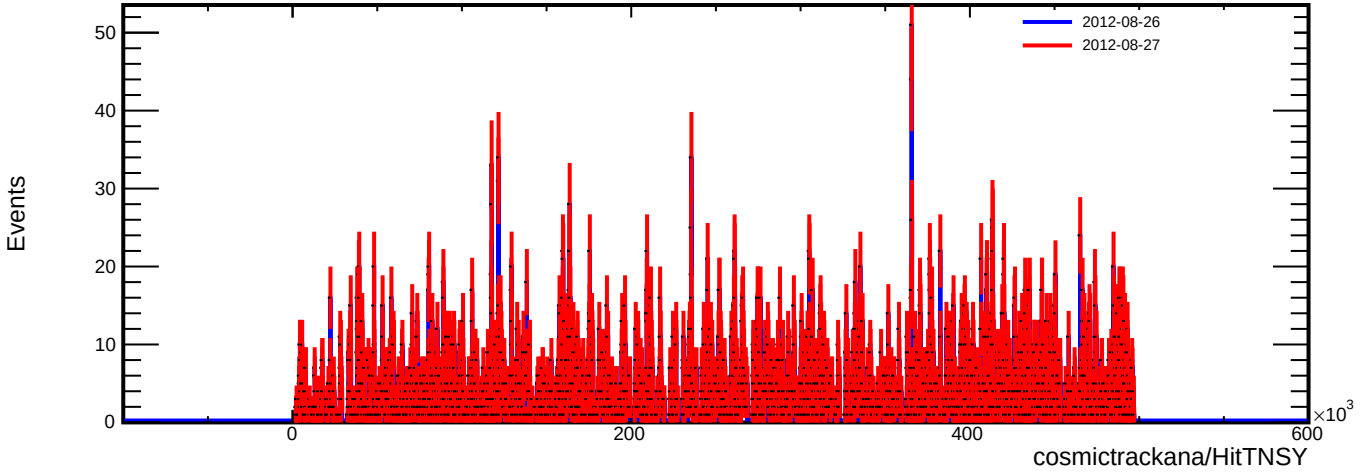

Asymmetry
Asymmetry (New-Ref.)/(New+Ref.)
0.05
0
-0.05
0
20
40
60
80
cosmictrackana/fCellY

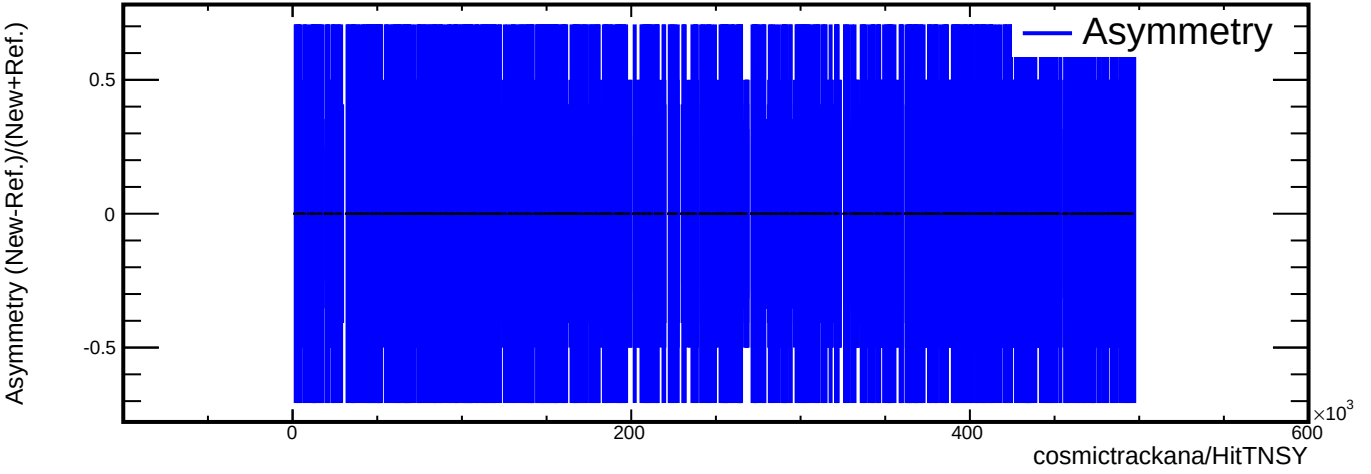

Events
400
300
200
100
0
0
50
100
150
cosmictrackana/fPlaneY
2012-08-26
2012-08-27


Asymmetry (New-Ref.)/(New+Ref.)
0.1
0
-0.1
0
50
100
150
cosmictrackana/fPlaneY
Asymmetry


2012-08-26
2012-08-27
Events
400
300
200
100
0
0
5
10
15
20
cosmictrackana/residualsY


Asymmetry
Asymmetry (New-Ref.)/(New+Ref.)
0.5
0
-0.5
0
5
10
15
20
cosmictrackana/residualsY


2012-08-26
2012-08-27
Events
0
10
20
30
40
50
0
200
400
600
×10^3
cosmictrackana/HitTNSY


Asymmetry
Asymmetry (New-Ref.)/(New+Ref.)
0.5
0
-0.5
0
200
400
600
×10^3
cosmictrackana/HitTNSY