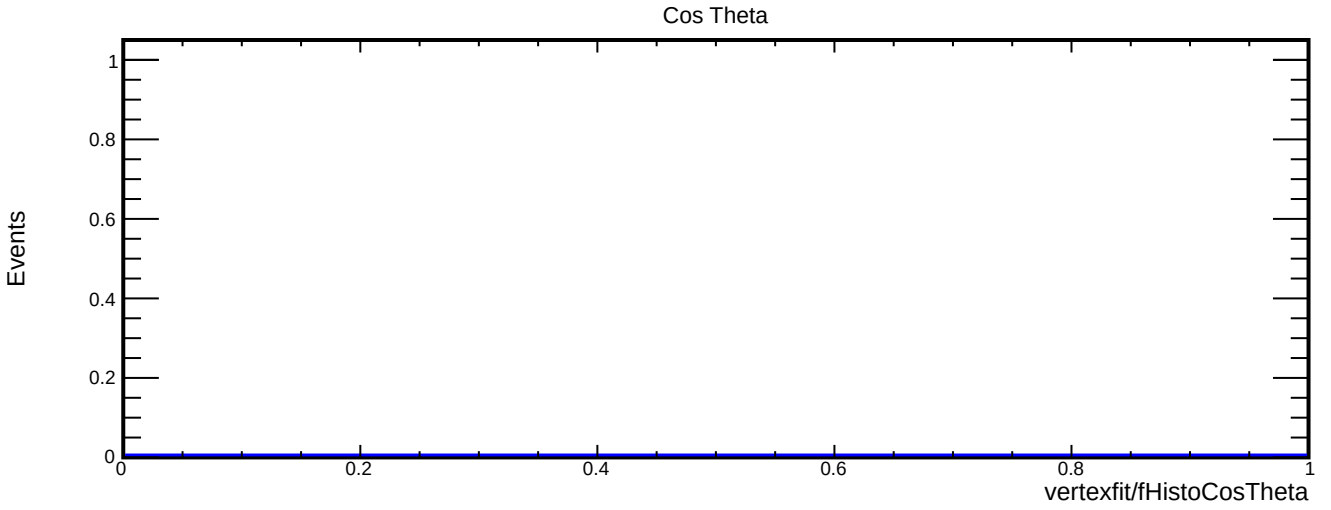
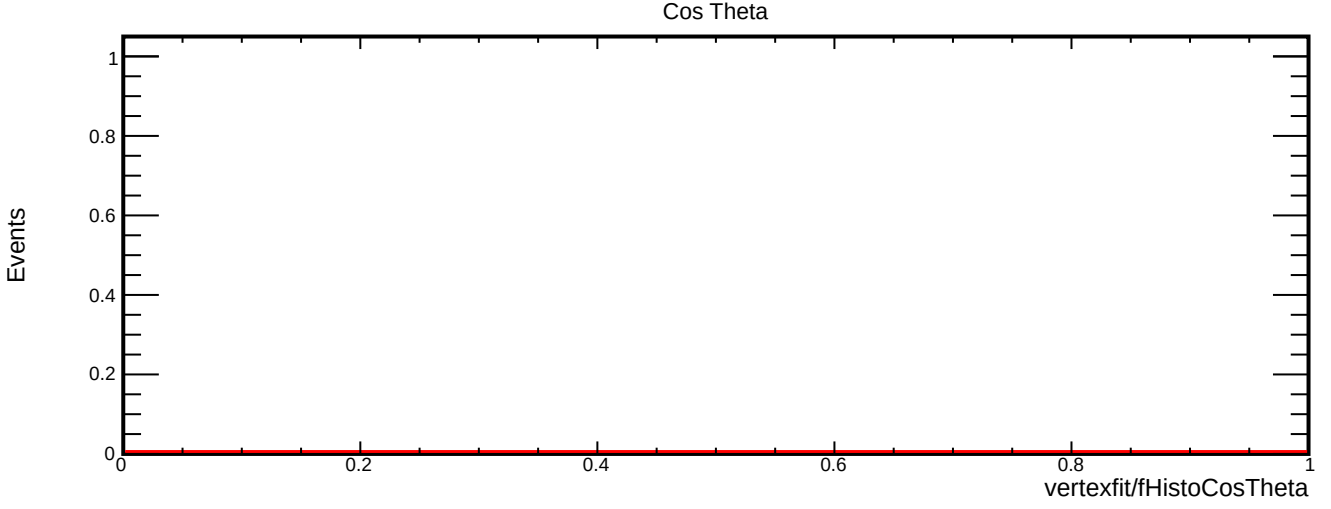
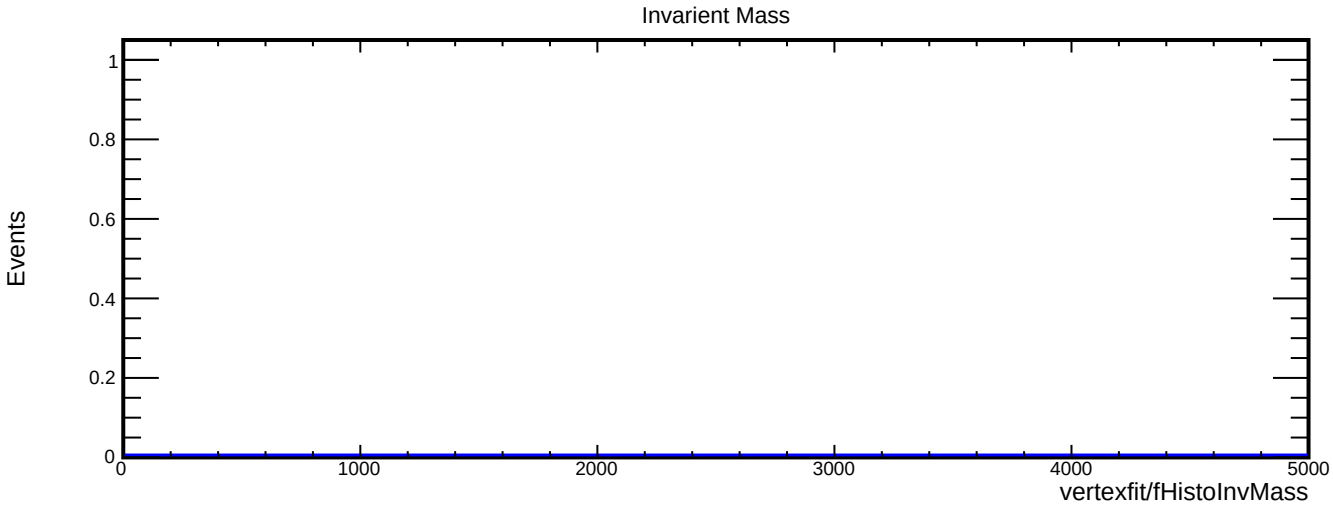
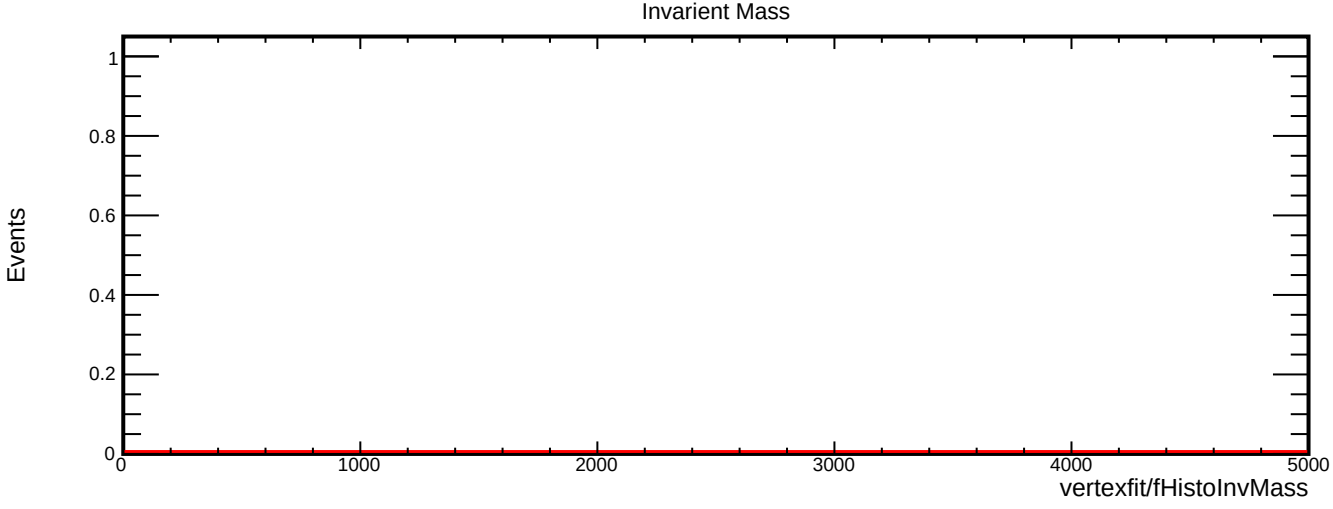
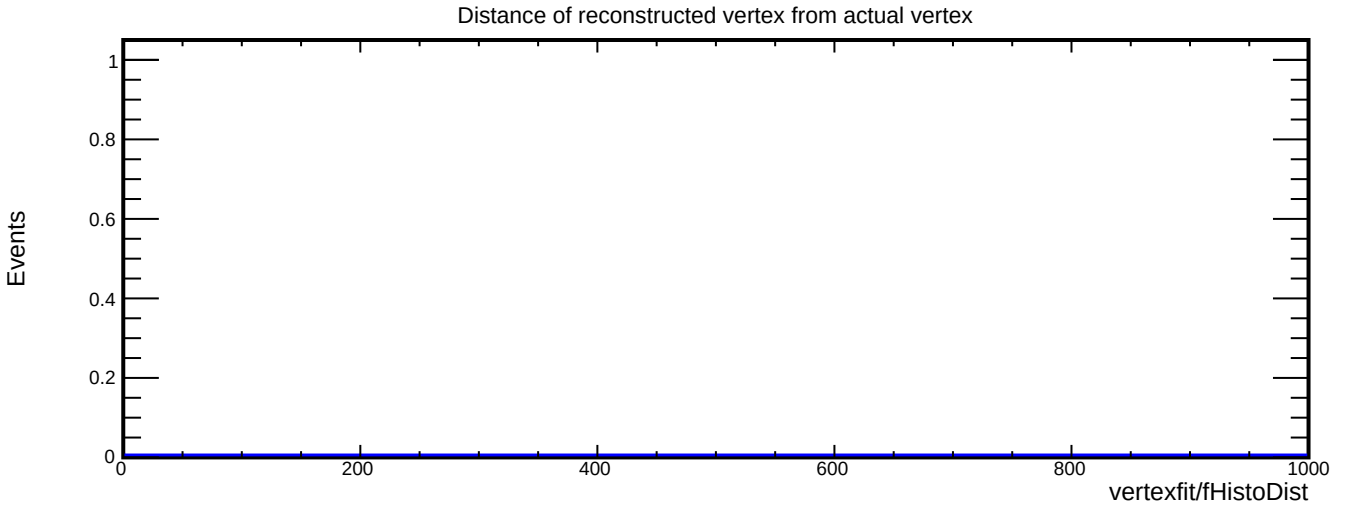
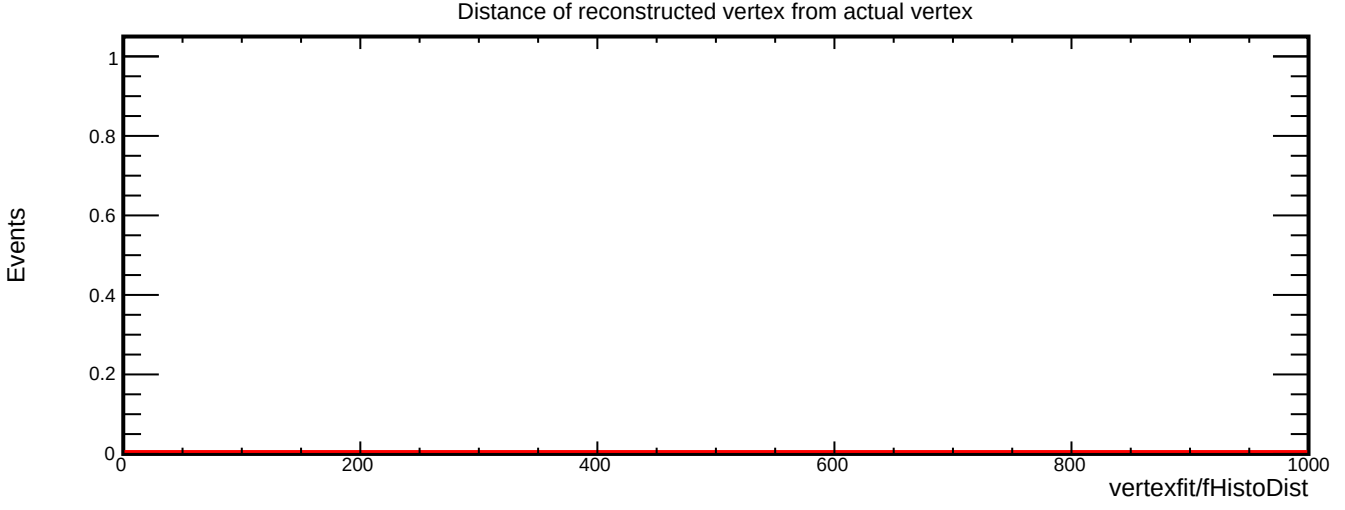

Cos Theta
Events
1
0.8
0.6
0.4
0.2
0
0
0.2
0.4
0.6
0.8
1
vertexfit/fHistoCosTheta

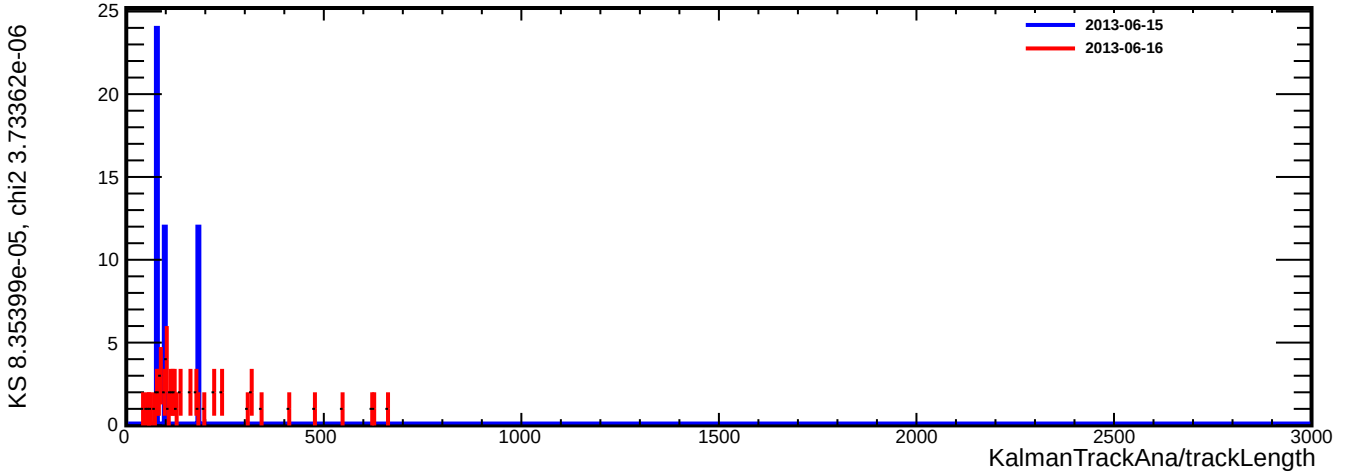

Cos Theta
Events
1
0.8
0.6
0.4
0.2
0
0
0.2
0.4
0.6
0.8
1
vertexfit/fHistoCosTheta

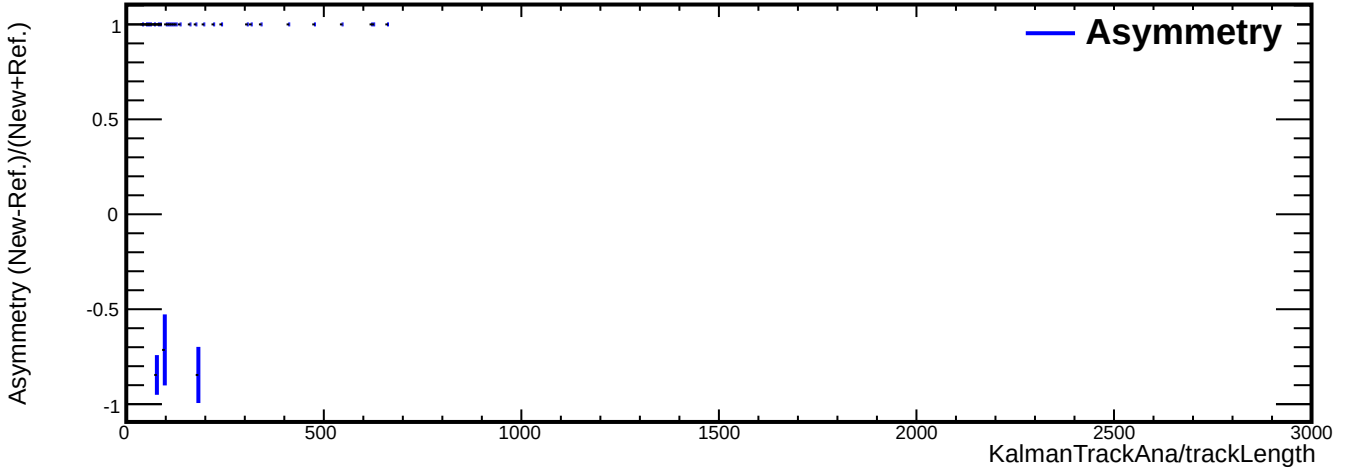

Invarient Mass
Events
1
0.8
0.6
0.4
0.2
0
0
1000
2000
3000
4000
5000
vertexfit/fHistoInvMass

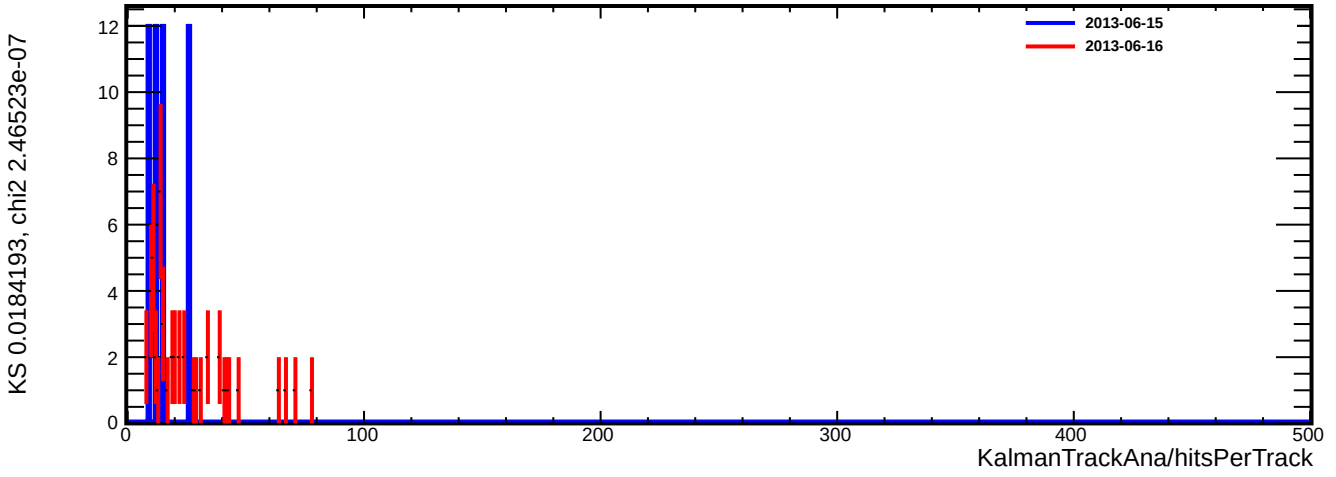

Invarient Mass
Events
1
0.8
0.6
0.4
0.2
0
0
1000
2000
3000
4000
5000
vertexfit/fHistoInvMass

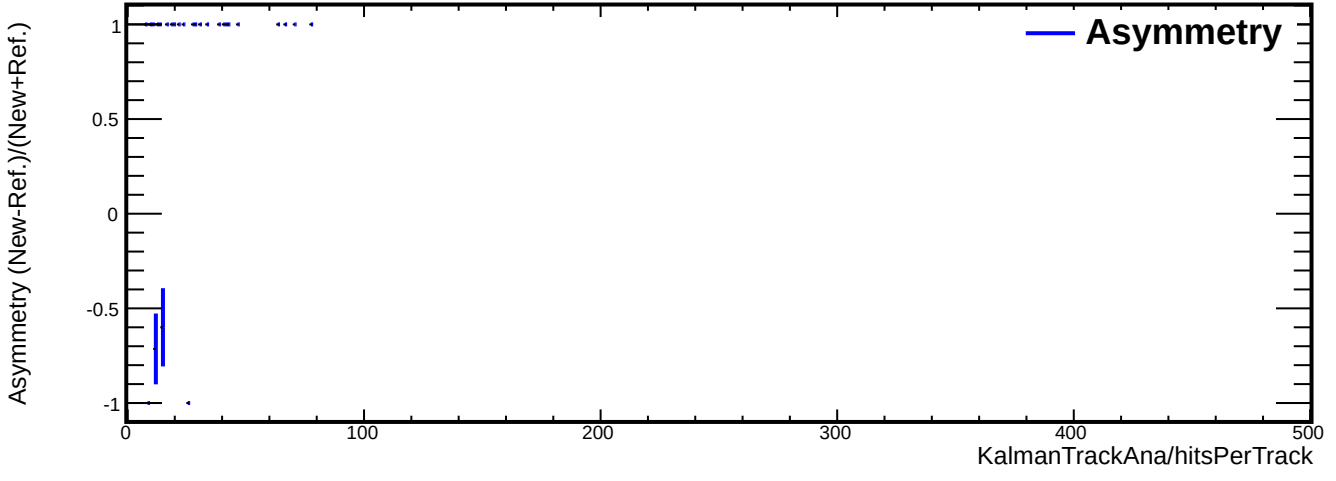

Distance of reconstructed vertex from actual vertex
Events
1
0.8
0.6
0.4
0.2
0
0
200
400
600
800
1000
vertexfit/fHistoDist

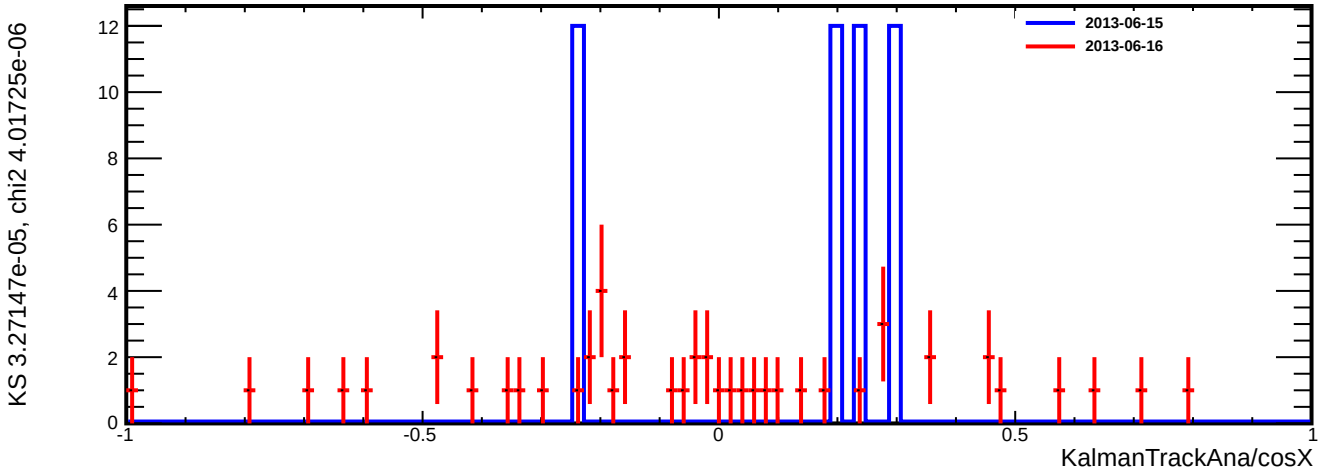

Distance of reconstructed vertex from actual vertex
Events
1
0.8
0.6
0.4
0.2
0
0
200
400
600
800
1000
vertexfit/fHistoDist

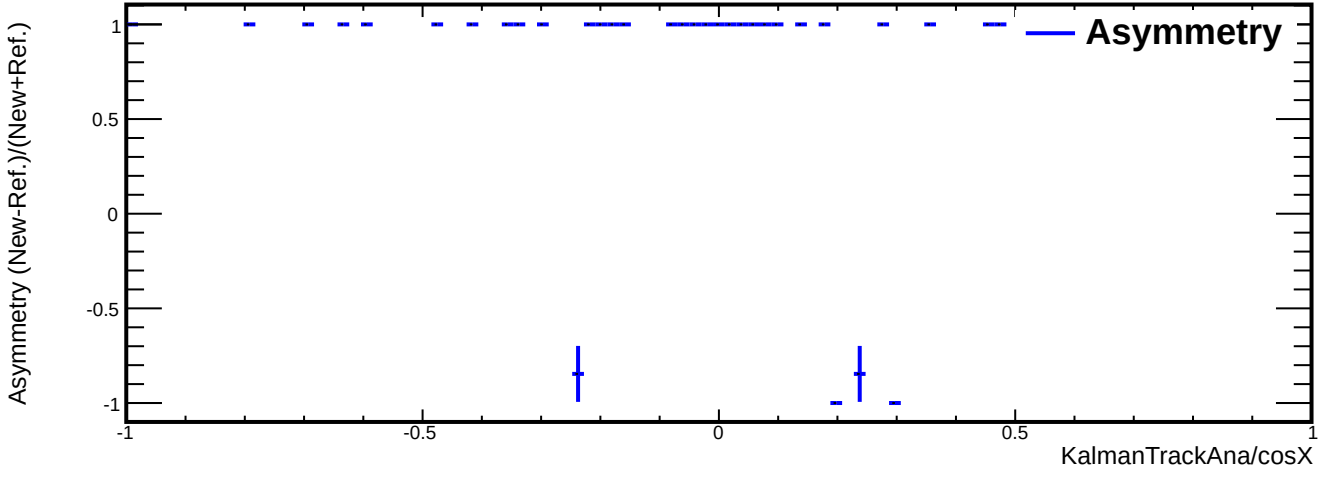

KS 8.35399e-05, chi2 3.73362e-06
2013-06-15
2013-06-16
KalmanTrackAna/trackLength

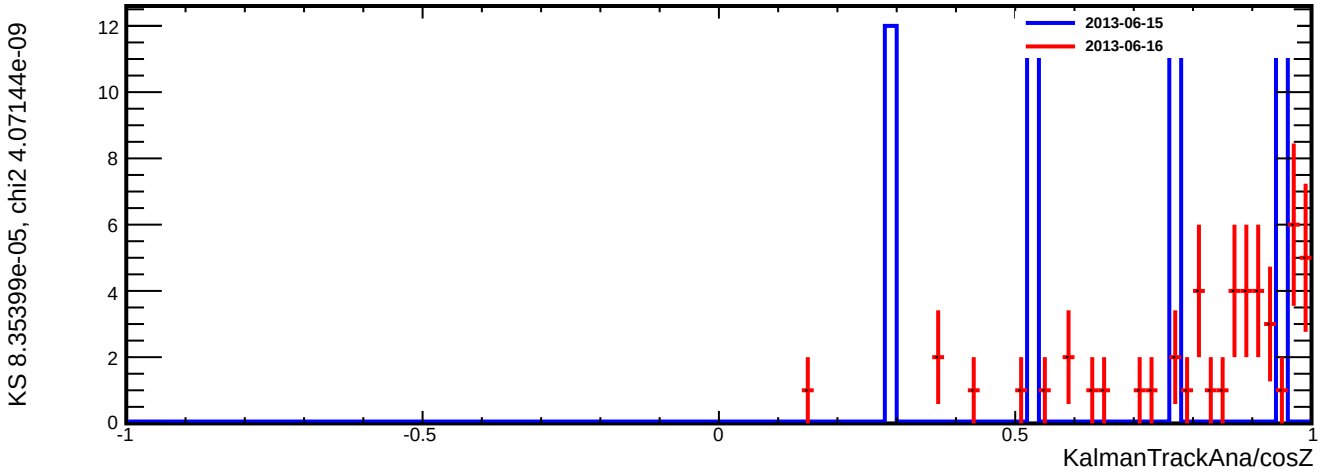

Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
KalmanTrackAna/trackLength

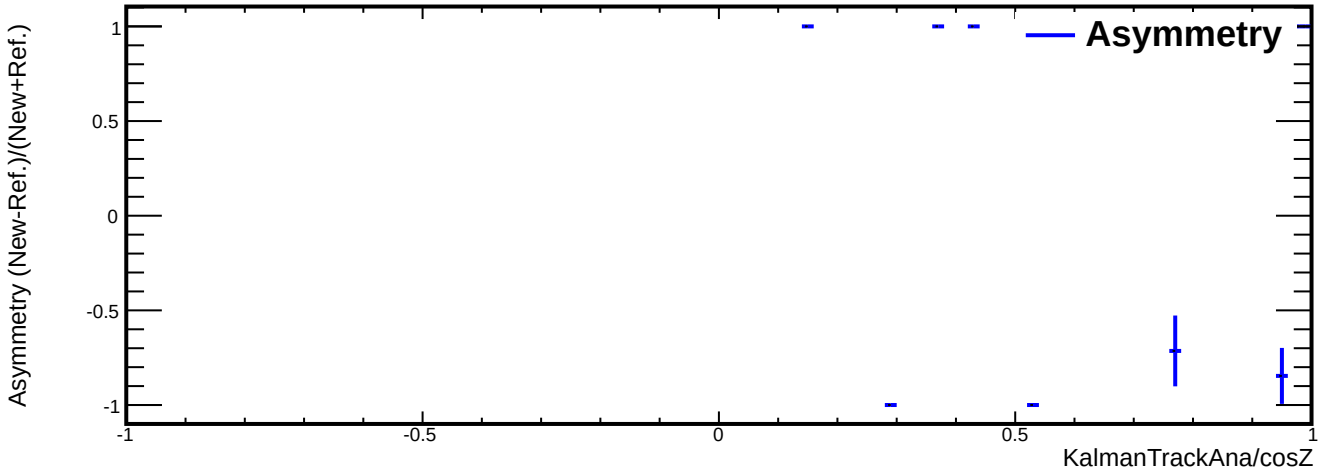

KS 0.0184193, chi2 2.46523e-07
2013-06-15
2013-06-16
KalmanTrackAna/hitsPerTrack

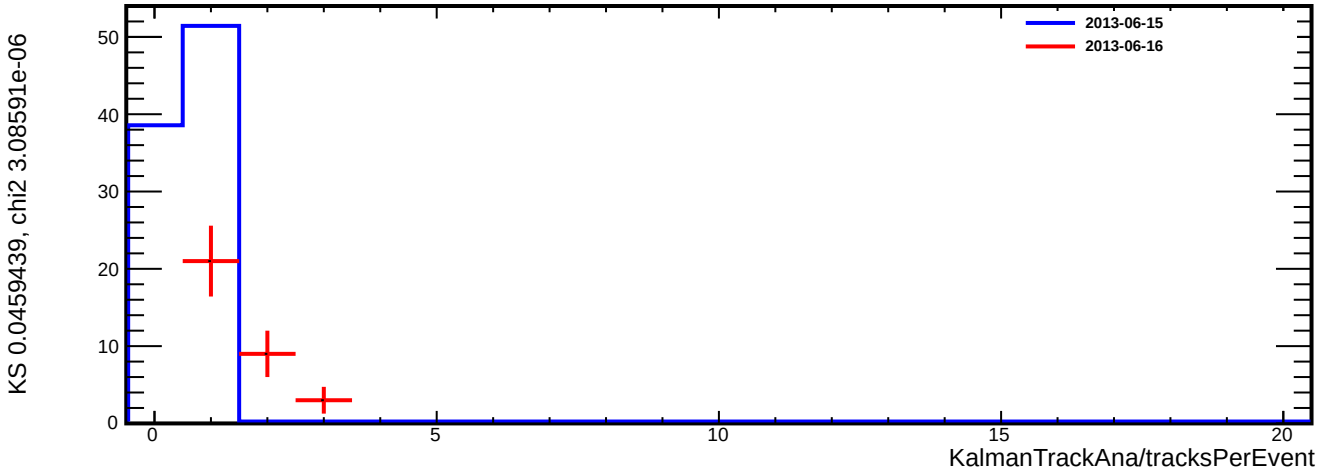

Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
KalmanTrackAna/hitsPerTrack

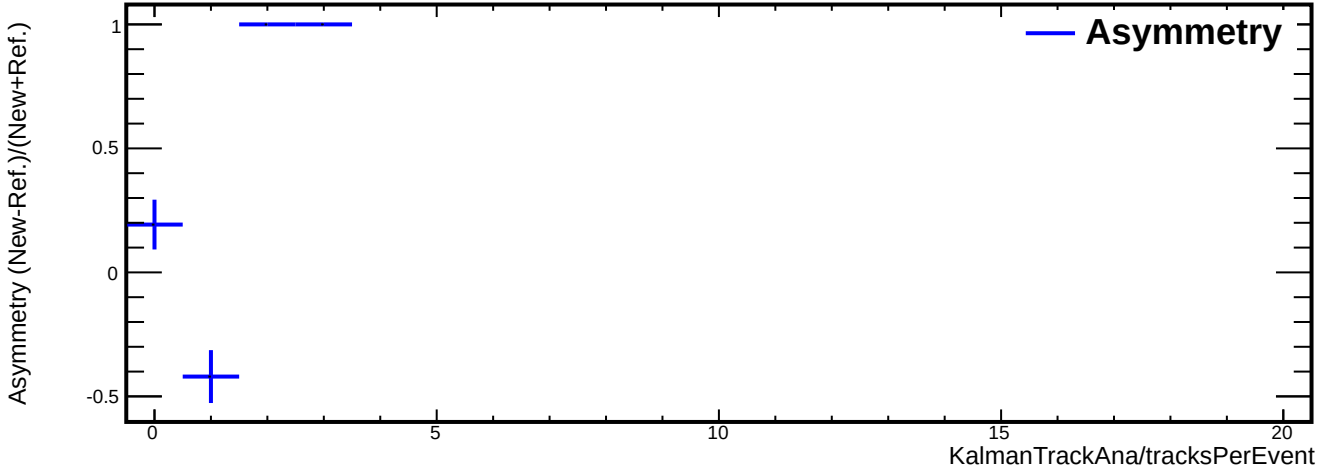

KS 3.27147e-05, chi2 4.01725e-06
2013-06-15
2013-06-16
KalmanTrackAna/cosX

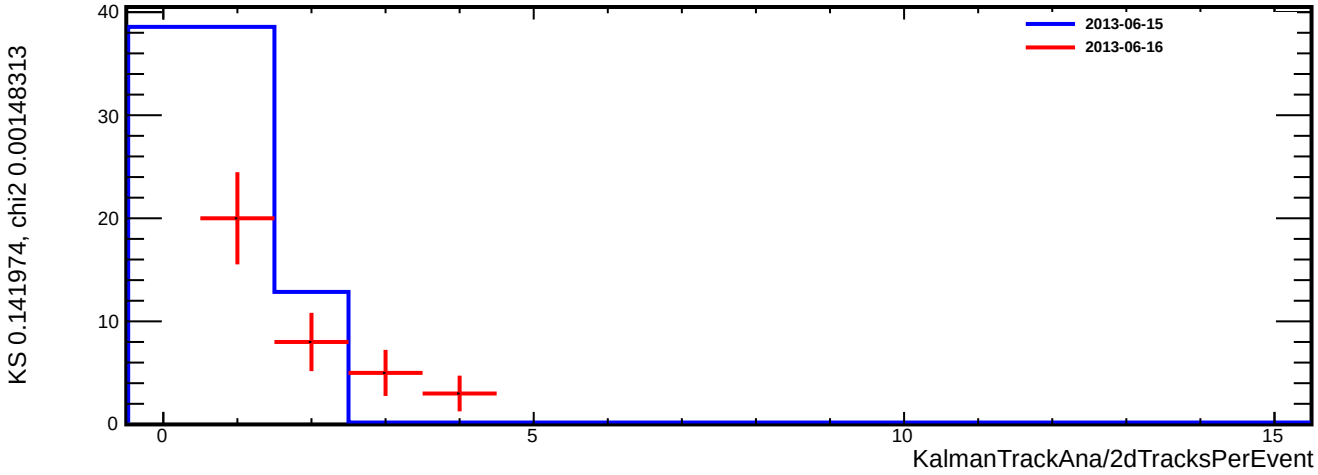

Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
KalmanTrackAna/cosX

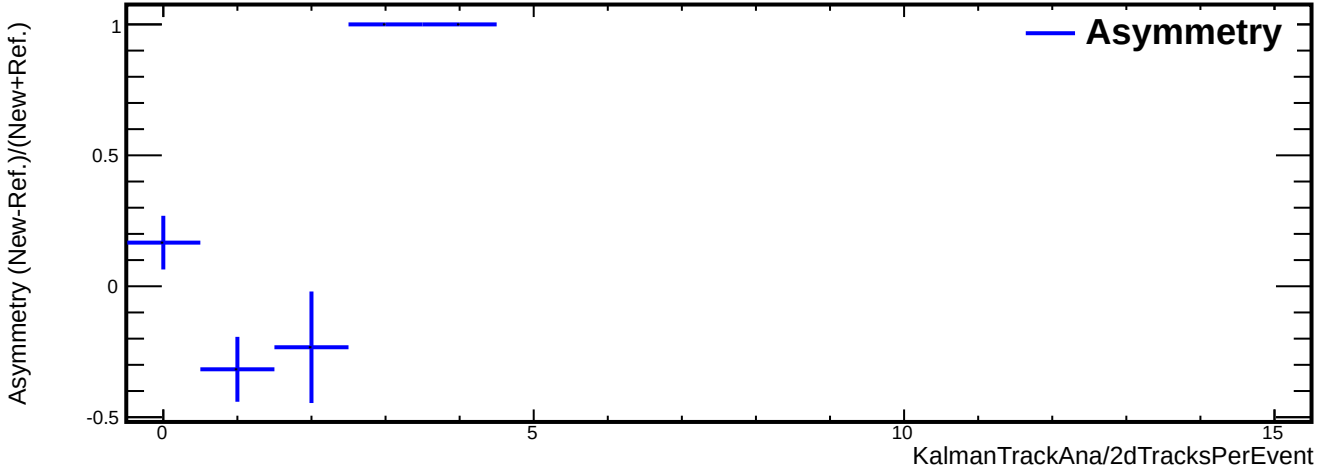

KS 8.35399e-05, chi2 4.07144e-09
2013-06-15
2013-06-16
KalmanTrackAna/cosZ

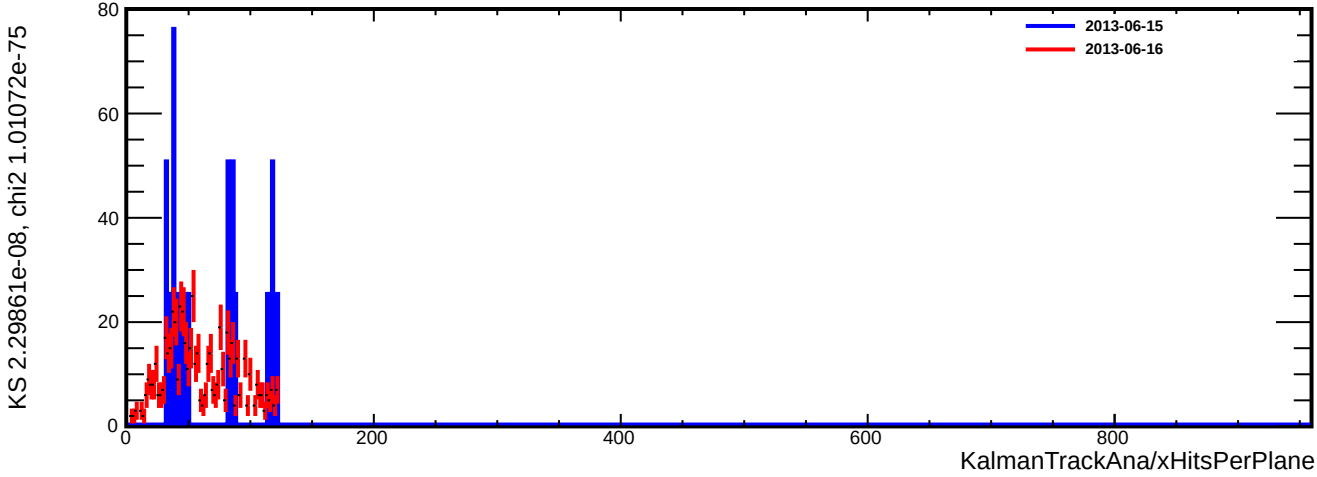

Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
KalmanTrackAna/cosZ

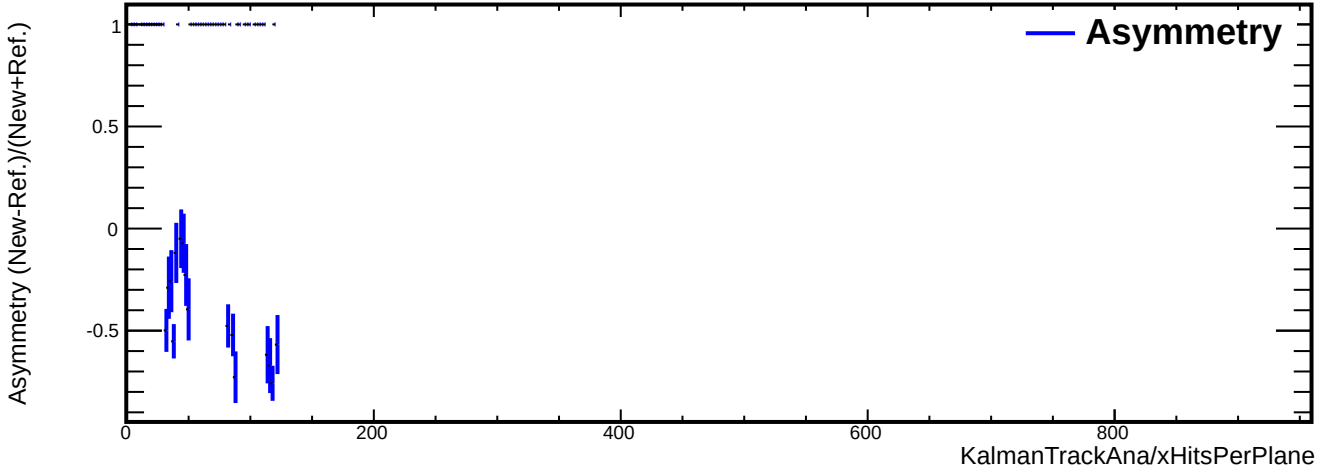

KS 0.0459439, chi2 3.08591e-06
2013-06-15
2013-06-16
0
10
20
30
40
50
0
5
10
15
20
KalmanTrackAna/tracksPerEvent

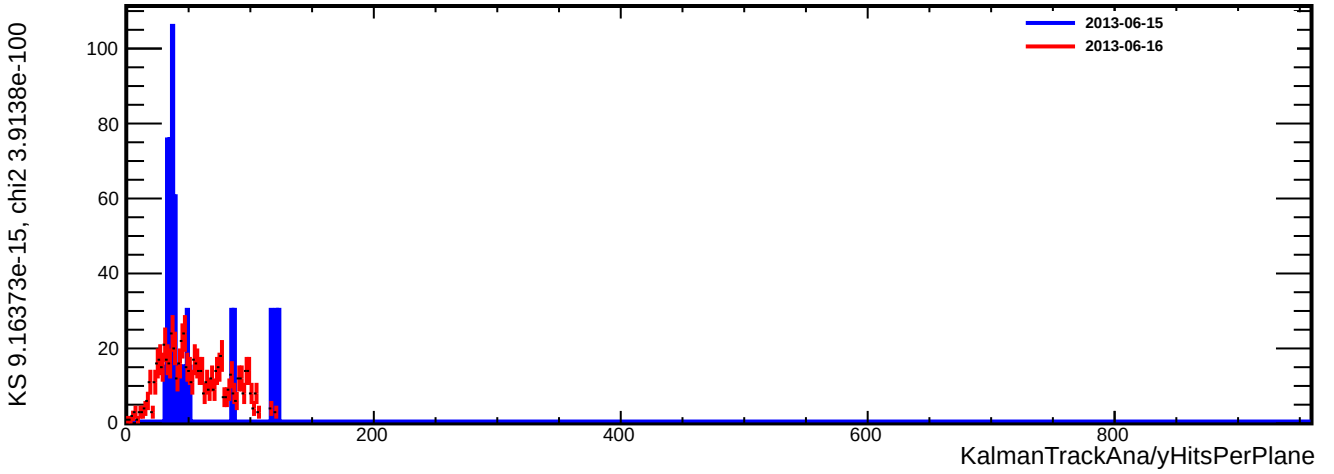

Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
1
0.5
0
-0.5
0
5
10
15
20
KalmanTrackAna/tracksPerEvent

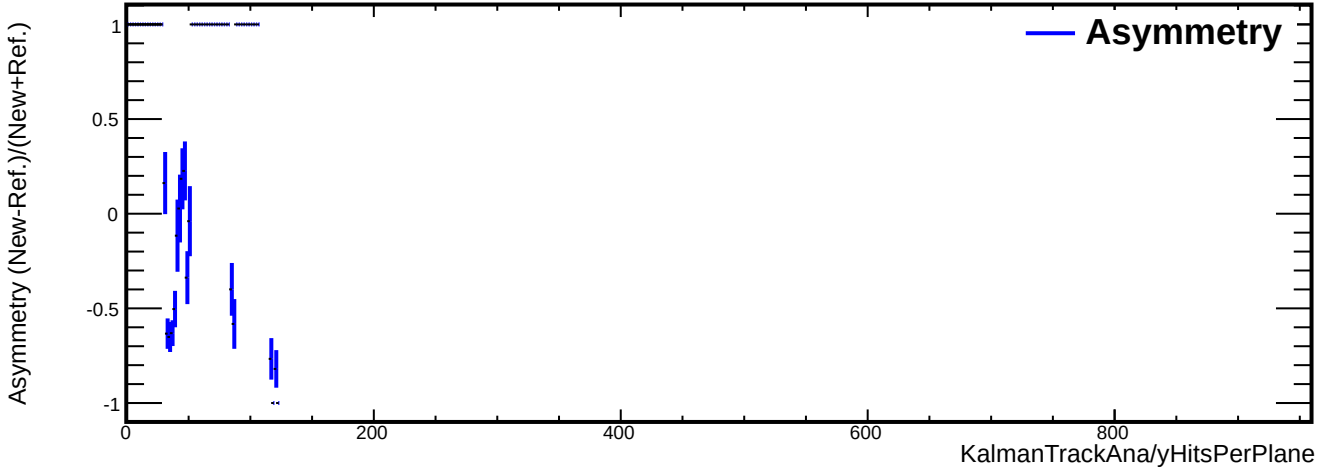

KS 0.141974, chi2 0.00148313
2013-06-15
2013-06-16
KalmanTrackAna/2dTracksPerEvent

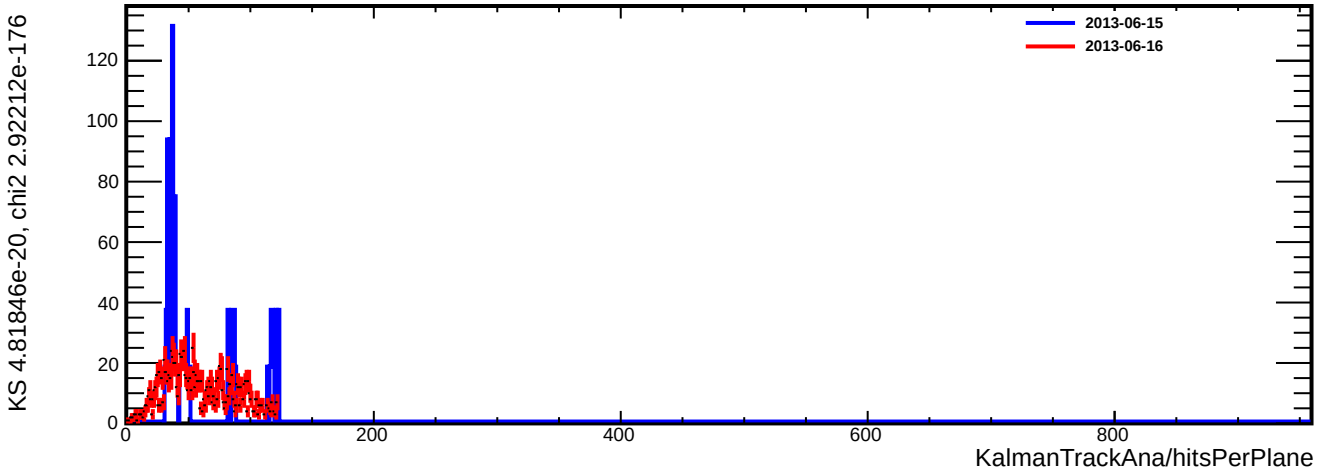

Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
KalmanTrackAna/2dTracksPerEvent

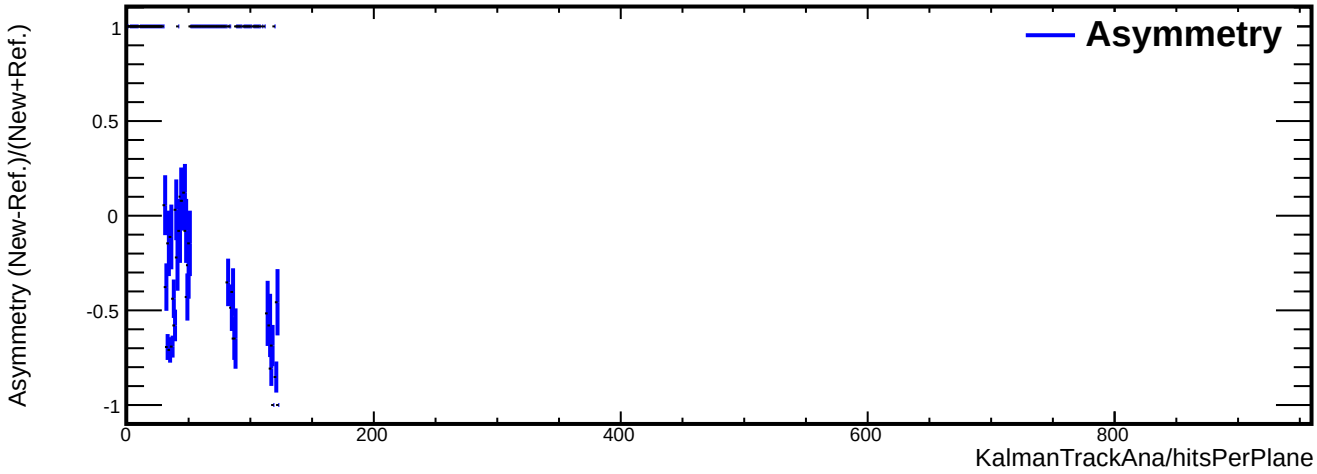

KS 2.29861e-08, chi2 1.01072e-75
2013-06-15
2013-06-16
0
20
40
60
80
0
200
400
600
800
KalmanTrackAna/xHitsPerPlane

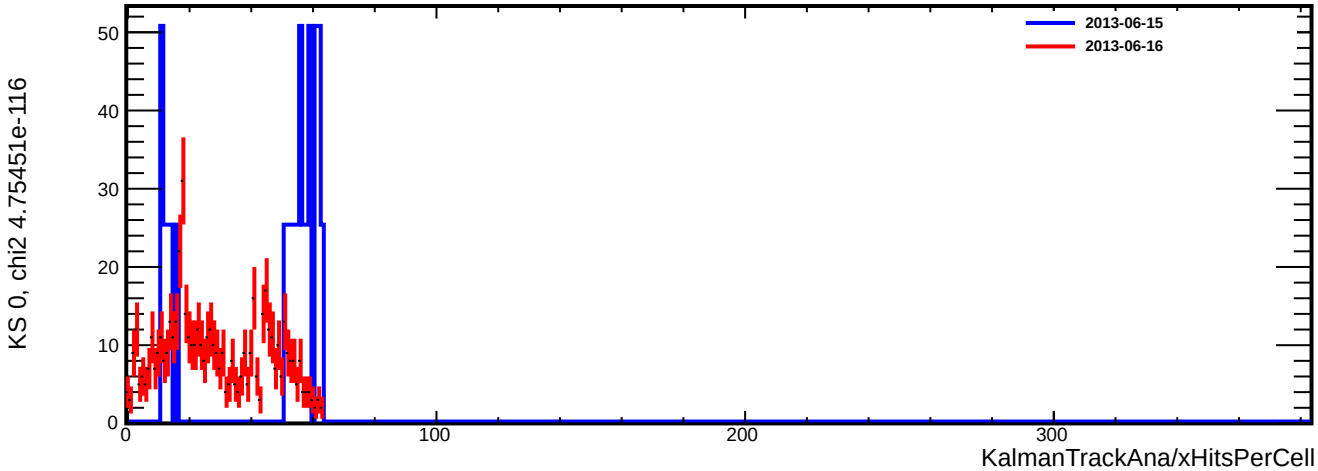

Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
1
0.5
0
-0.5
0
200
400
600
800
KalmanTrackAna/xHitsPerPlane

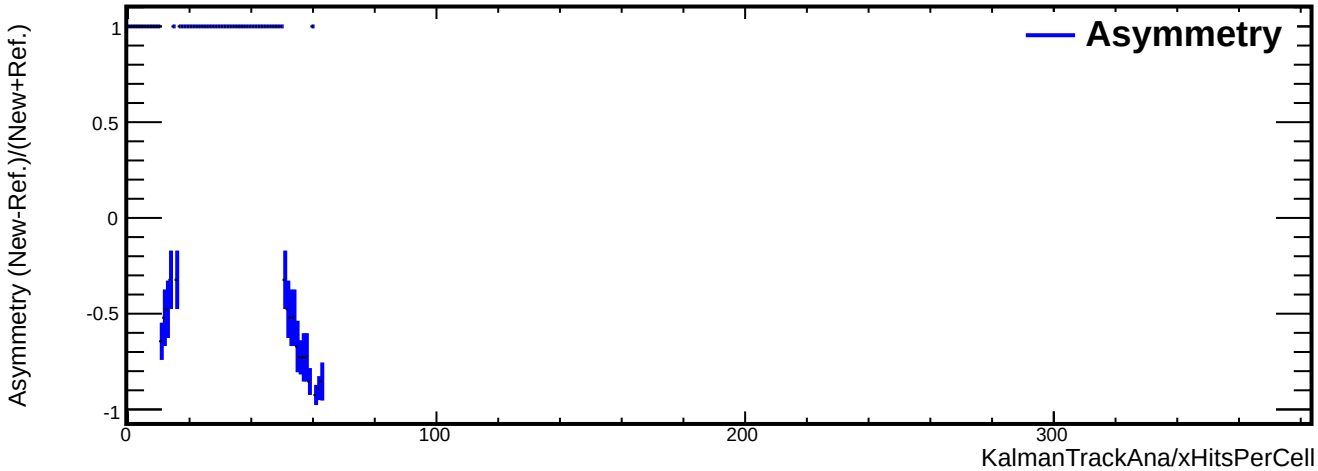

KS 9.16373e-15, chi2 3.9138e-100
2013-06-15
2013-06-16
0
20
40
60
80
100
0
200
400
600
800
KalmanTrackAna/yHitsPerPlane

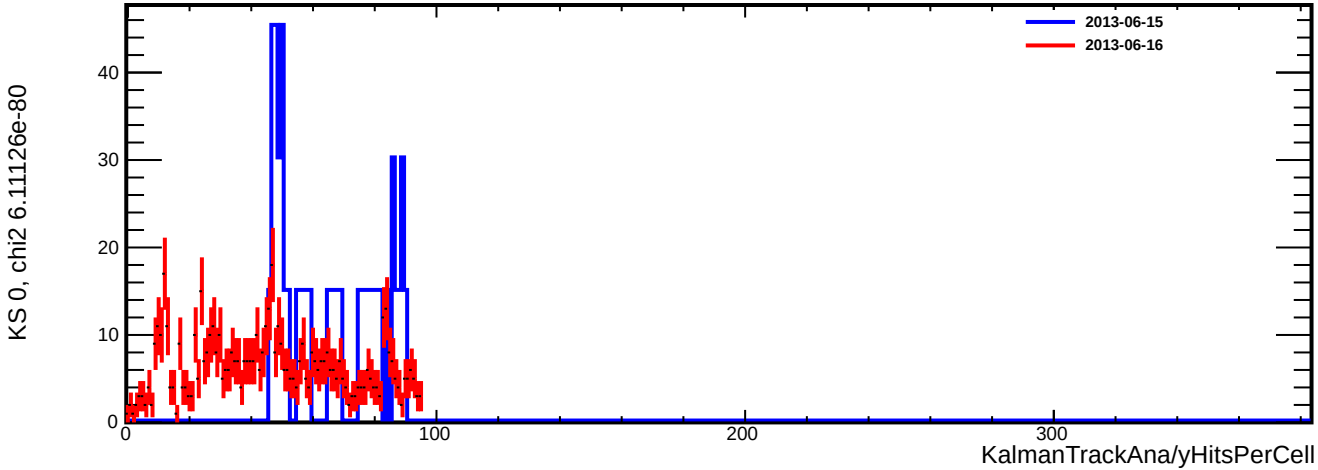

Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
1
0.5
0
-0.5
-1
0
200
400
600
800
KalmanTrackAna/yHitsPerPlane

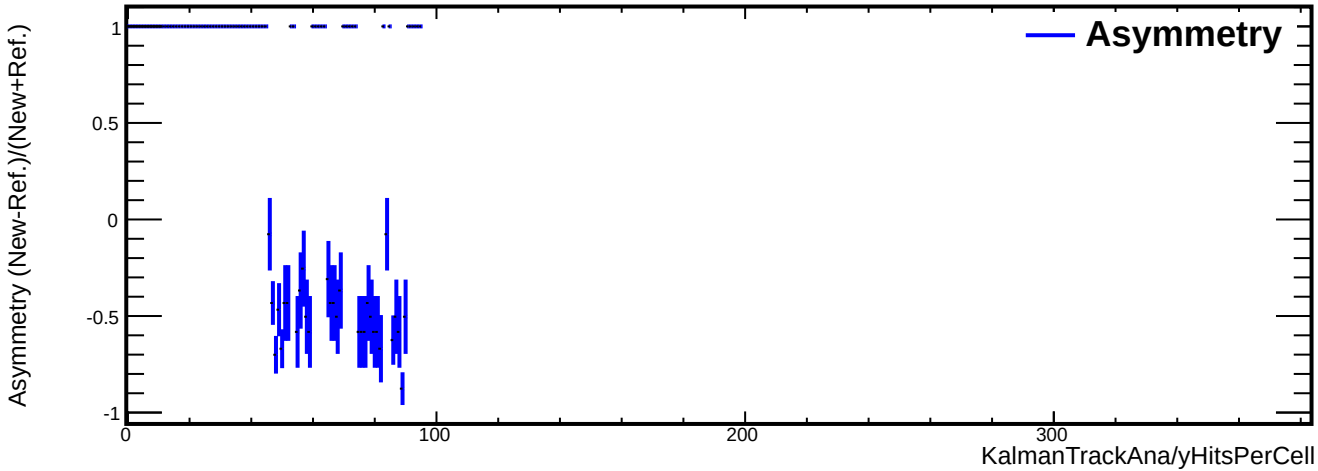

KS 4.81846e-20, chi2 2.92212e-176
2013-06-15
2013-06-16
0
20
40
60
80
100
120
0
200
400
600
800
KalmanTrackAna/hitsPerPlane

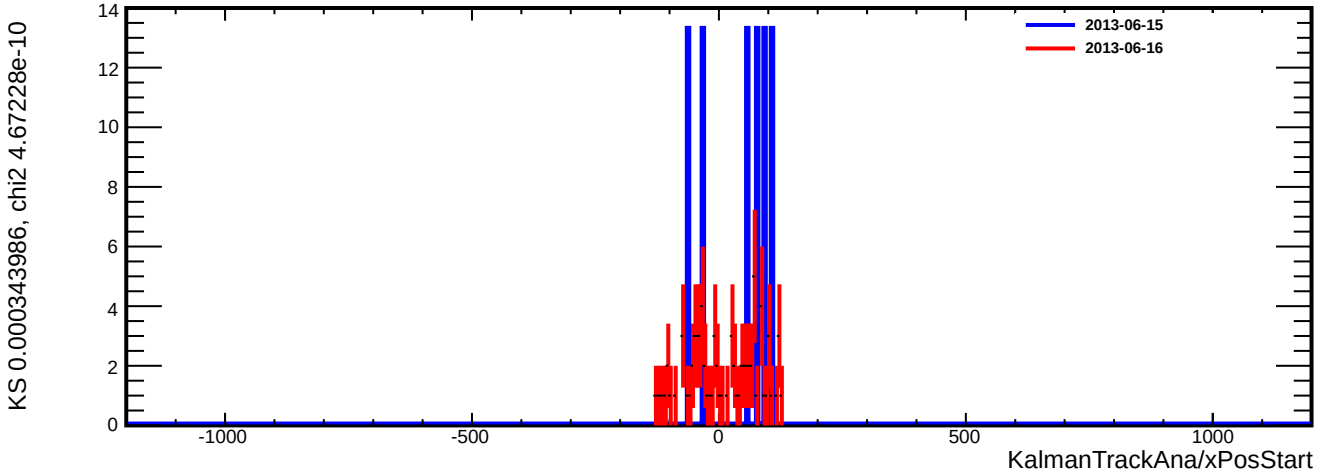

Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
1
0.5
0
-0.5
-1
0
200
400
600
800
KalmanTrackAna/hitsPerPlane

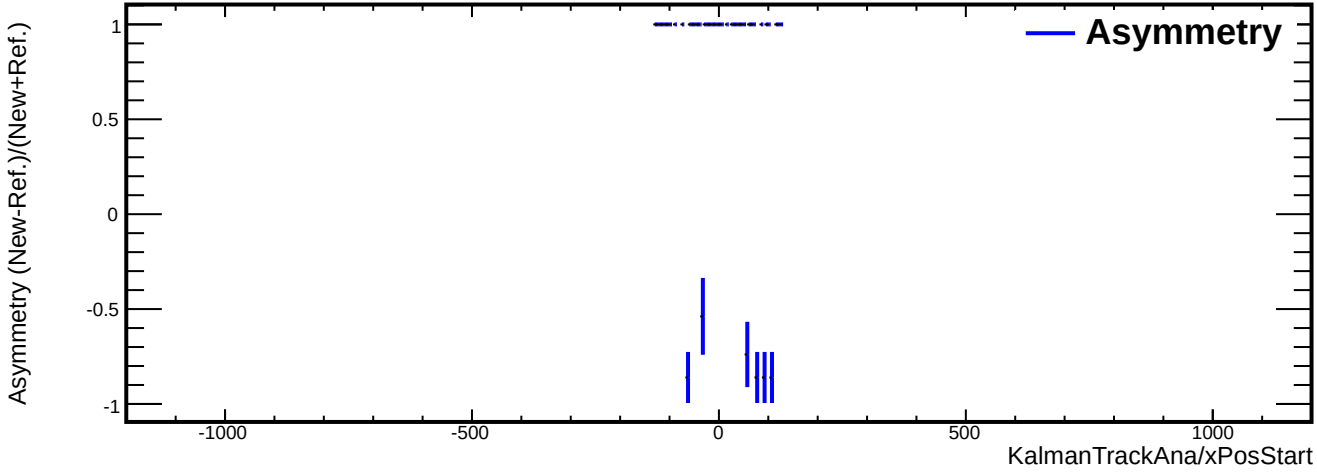

2013-06-15
2013-06-16
KS 0, chi2 4.75451e-116
KalmanTrackAna/xHitsPerCell
0
10
20
30
40
50
0
100
200
300

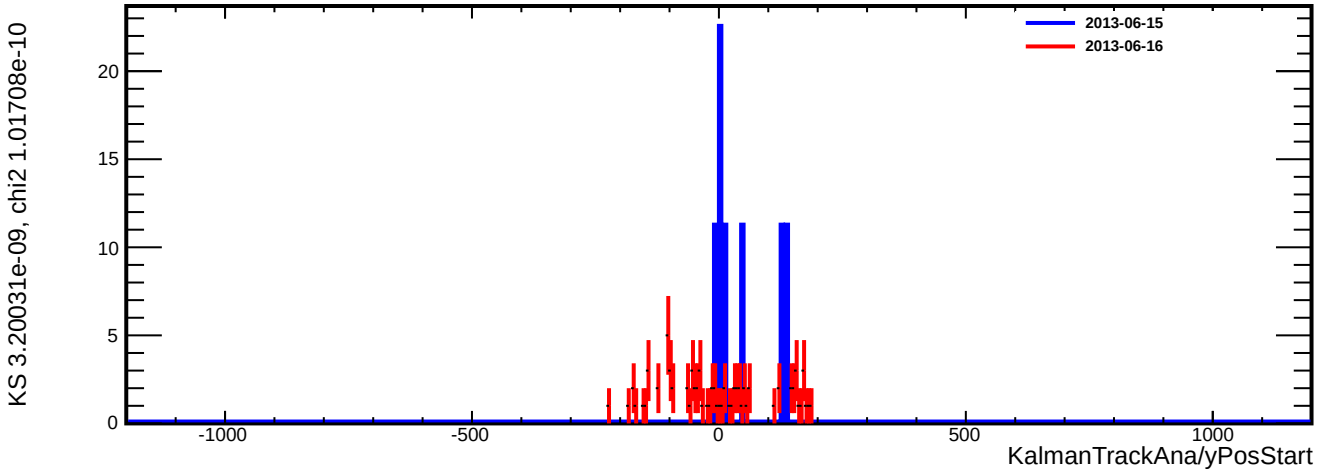

Asymmetry
Asymmetry (New-Ref.)/(New+Ref.)
KalmanTrackAna/xHitsPerCell
1
0.5
0
-0.5
-1
0
100
200
300

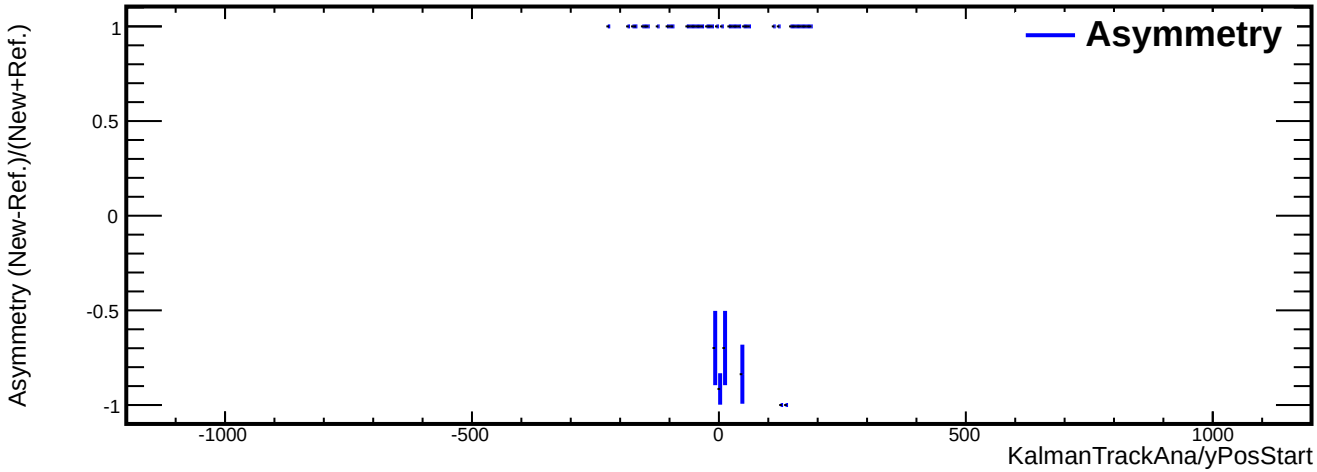

2013-06-15
2013-06-16
KS 0, chi2 6.11126e-80
0
10
20
30
40
0
100
200
300
KalmanTrackAna/yHitsPerCell

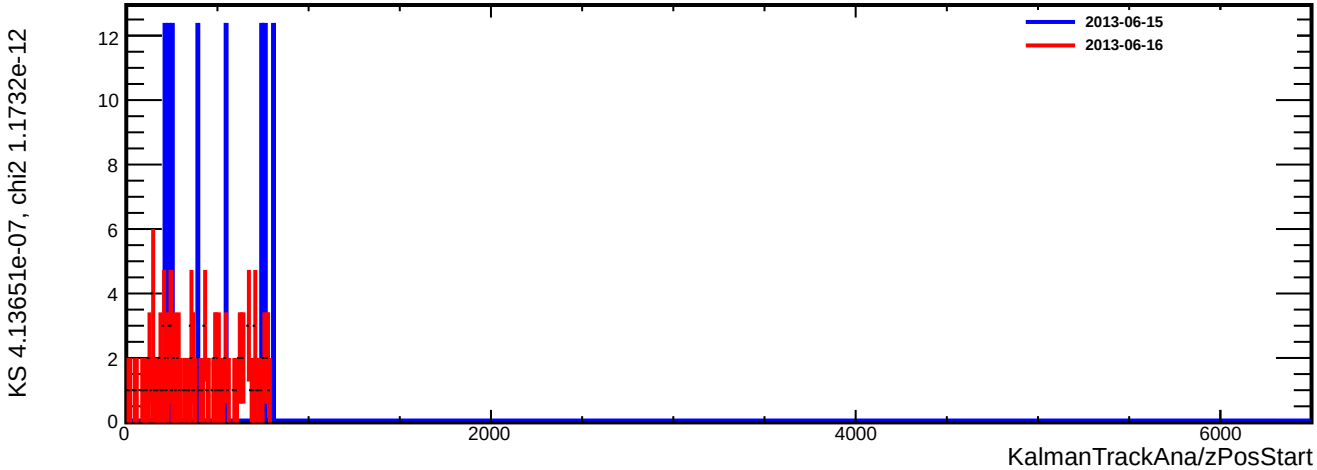

Asymmetry
Asymmetry (New-Ref.)/(New+Ref.)
1
0.5
0
-0.5
-1
0
100
200
300
KalmanTrackAna/yHitsPerCell

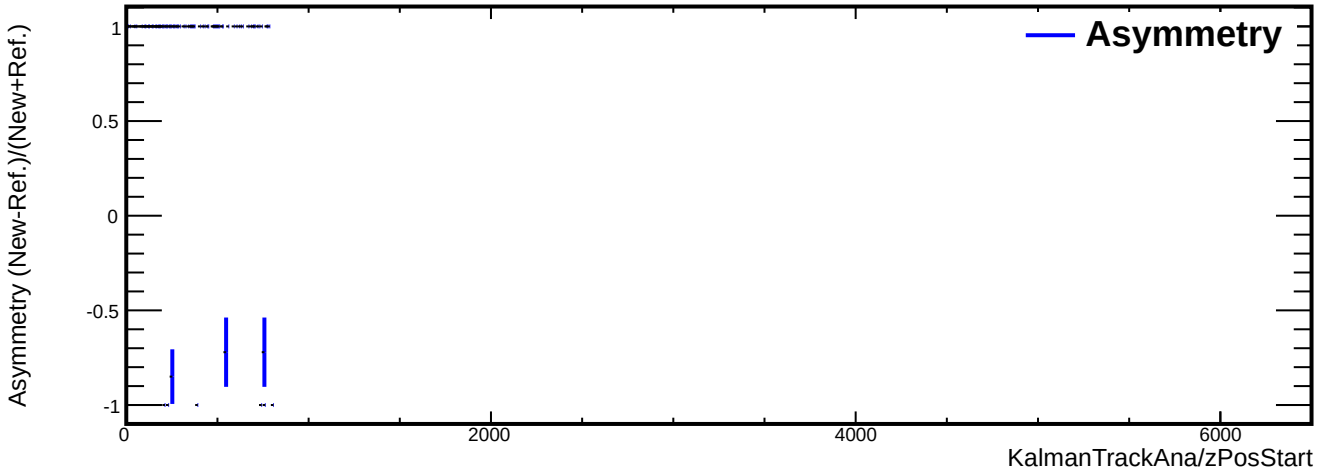

KS 0.000343986, chi2 4.67228e-10
2013-06-15
2013-06-16
KalmanTrackAna/xPosStart

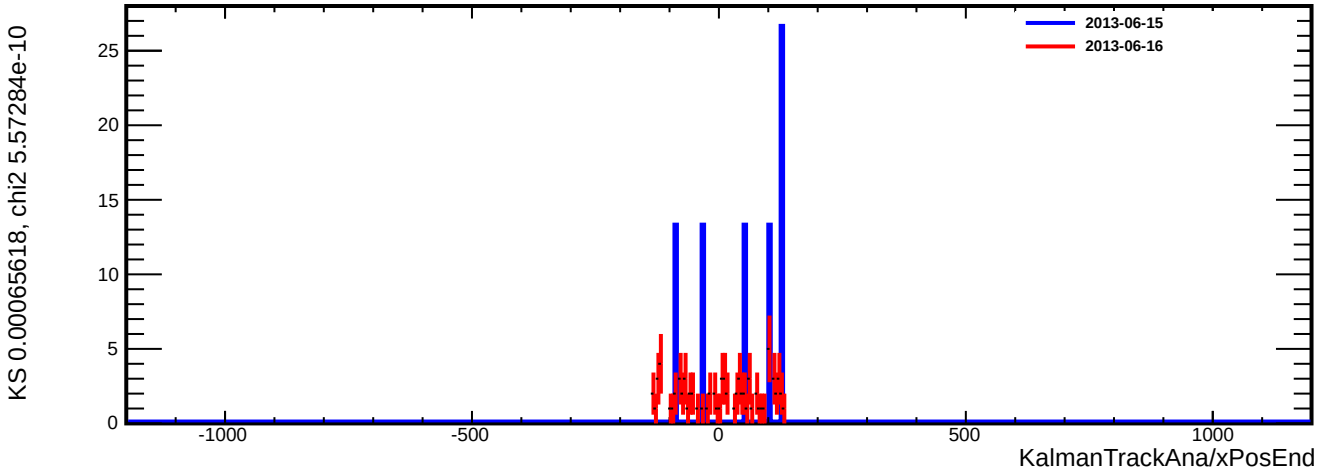

Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
KalmanTrackAna/xPosStart

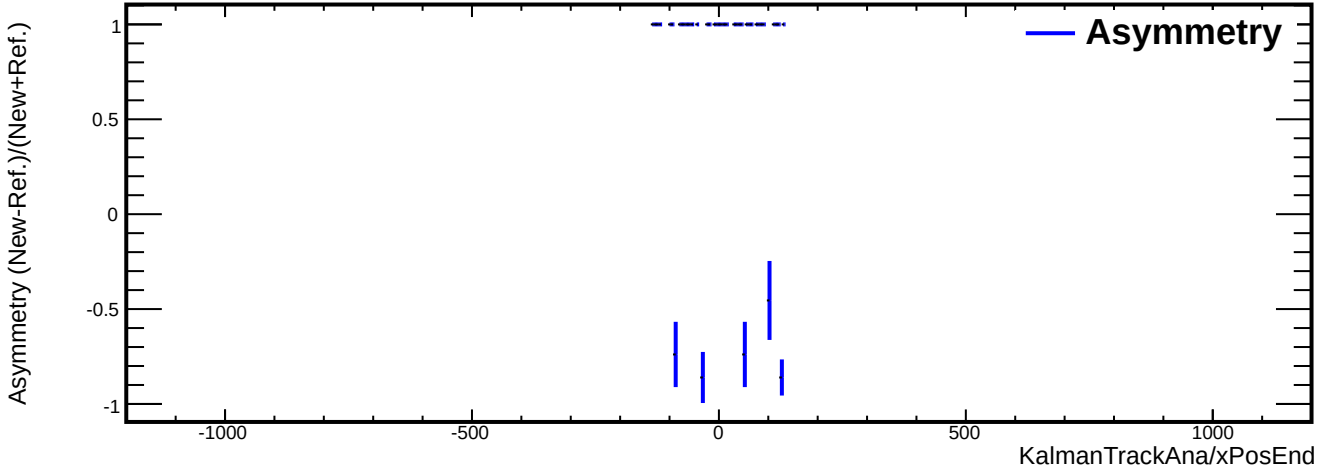

KS 3.20031e-09, chi2 1.01708e-10
2013-06-15
2013-06-16
20
15
10
5
0
-1000
-500
0
500
1000
KalmanTrackAna/yPosStart

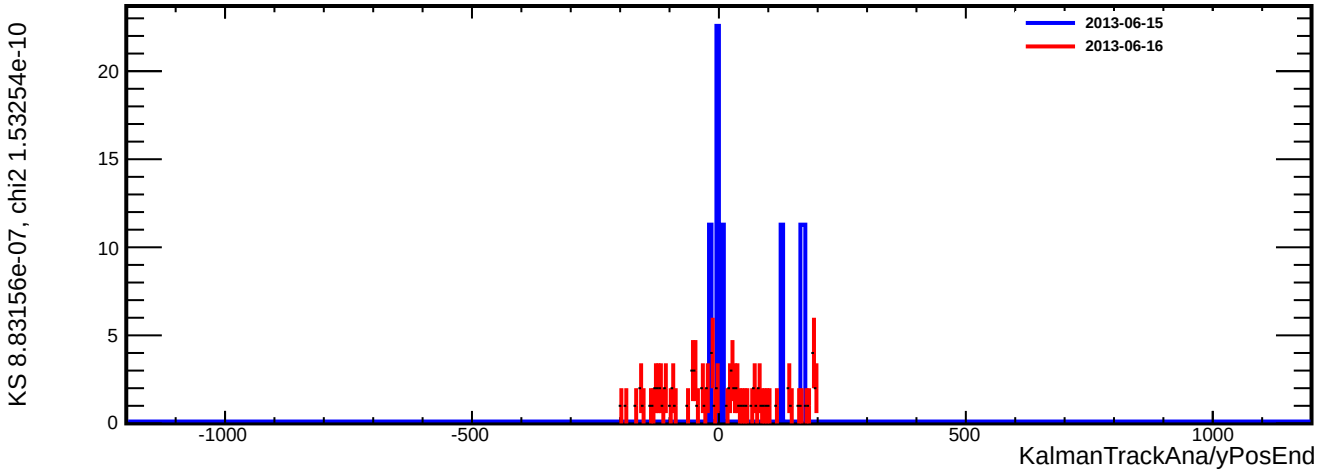

Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
1
0.5
0
-0.5
-1
-1000
-500
0
500
1000
KalmanTrackAna/yPosStart

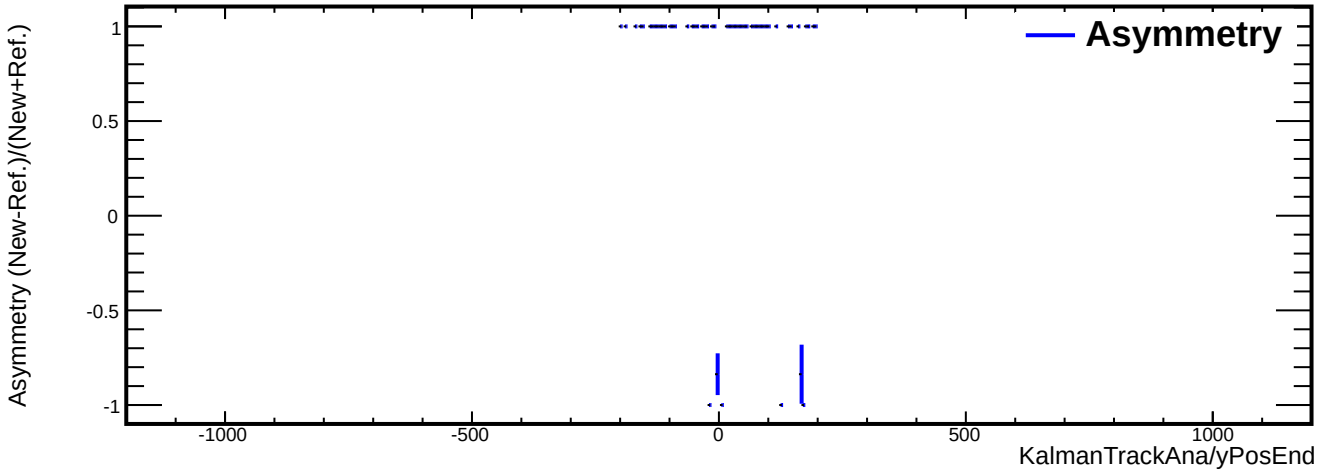

KS 4.13651e-07, chi2 1.1732e-12
2013-06-15
2013-06-16
0
2
4
6
8
10
12
0
2000
4000
6000
KalmanTrackAna/zPosStart

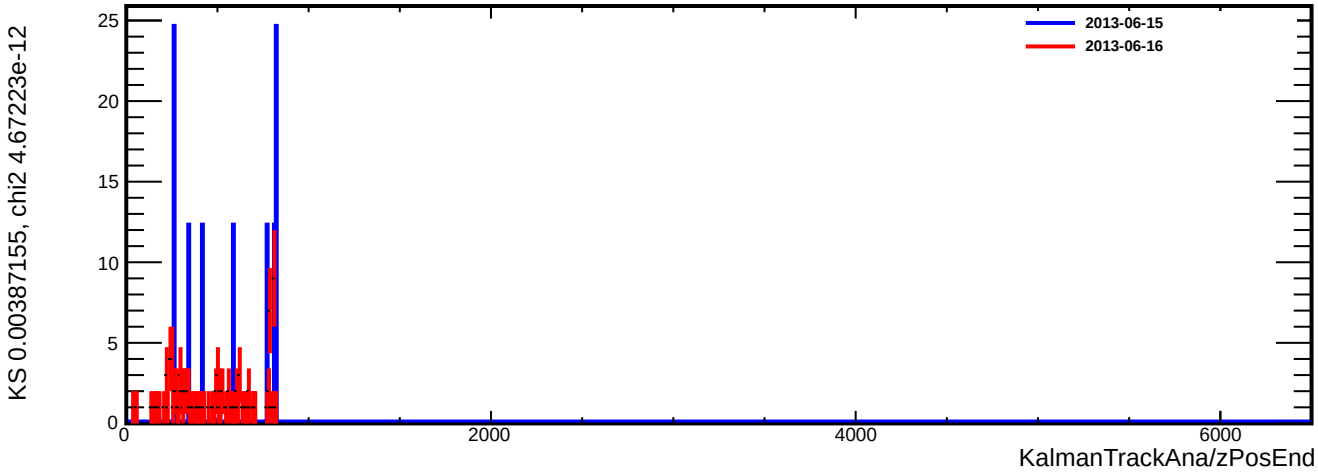

Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
1
0.5
0
-0.5
-1
0
2000
4000
6000
KalmanTrackAna/zPosStart

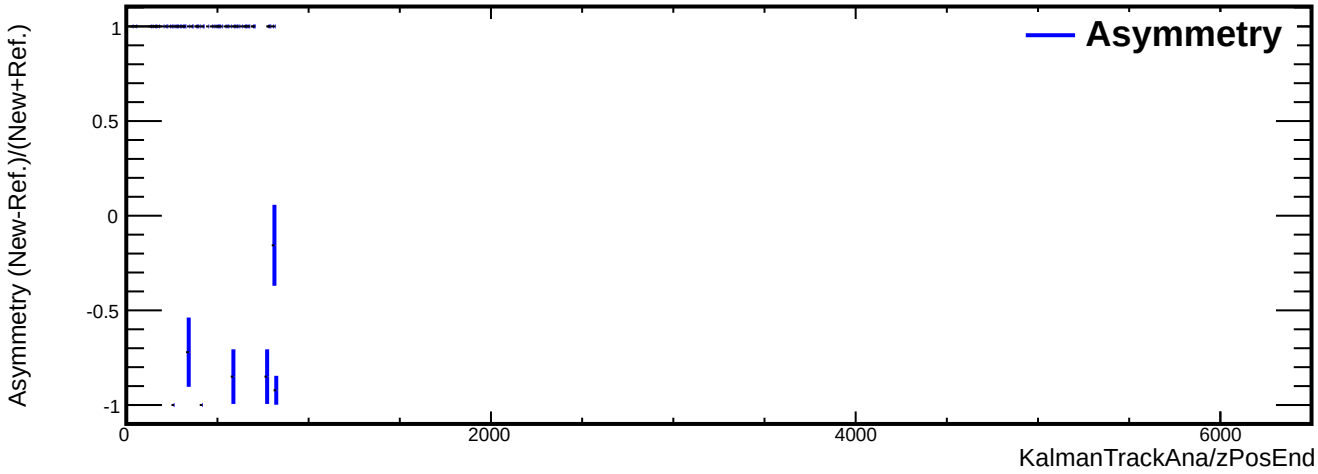

KS 0.00065618, chi2 5.57284e-10
2013-06-15
2013-06-16
25
20
15
10
5
0
-1000
-500
0
500
1000
KalmanTrackAna/xPosEnd

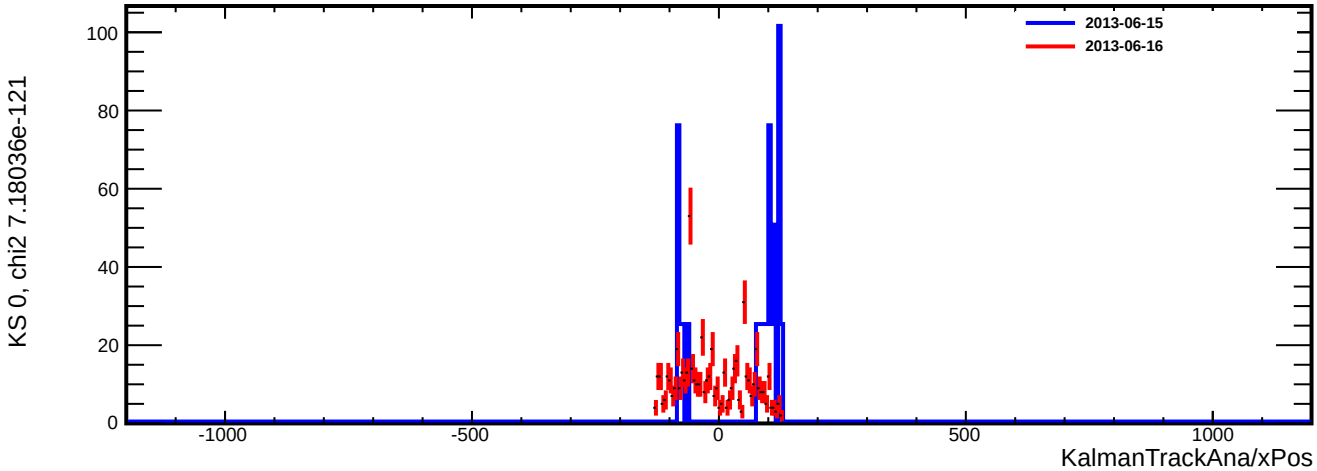

Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
1
0.5
0
-0.5
-1
-1000
-500
0
500
1000
KalmanTrackAna/xPosEnd

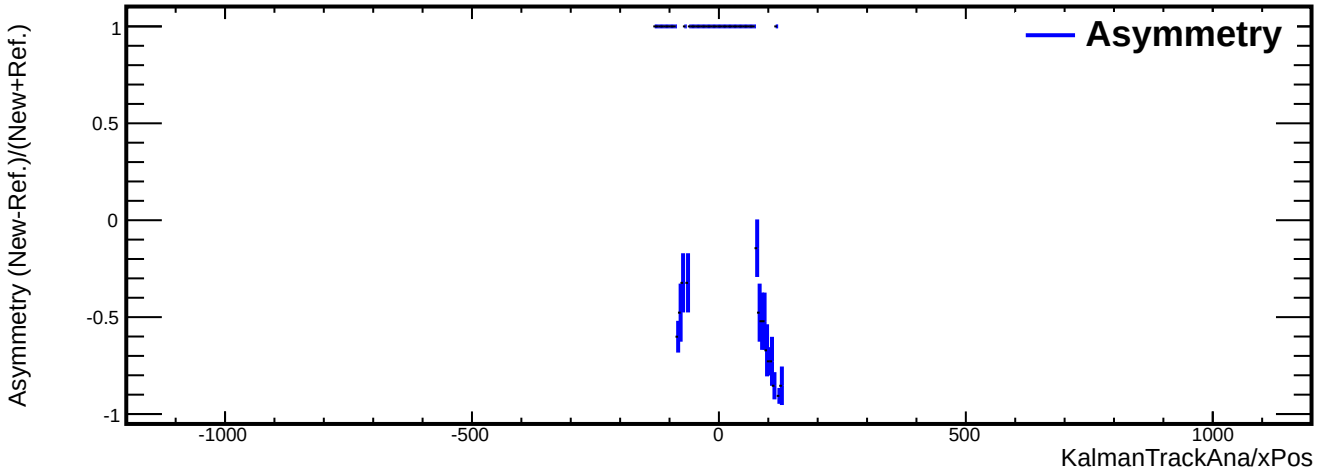

KS 8.83156e-07, chi2 1.53254e-10
2013-06-15
2013-06-16
20
15
10
5
0
-1000
-500
0
500
1000
KalmanTrackAna/yPosEnd

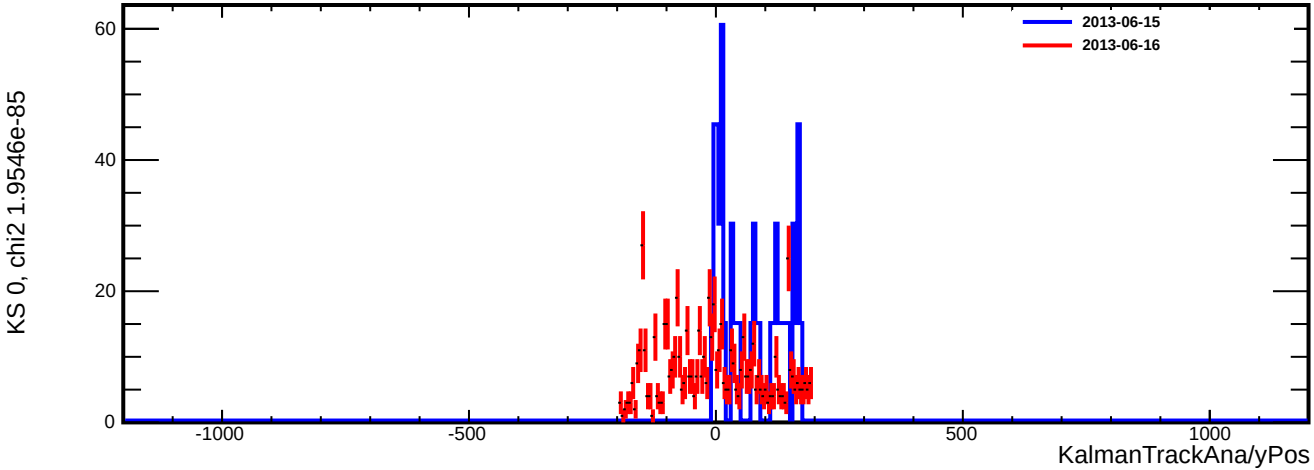

Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
1
0.5
0
-0.5
-1
-1000
-500
0
500
1000
KalmanTrackAna/yPosEnd

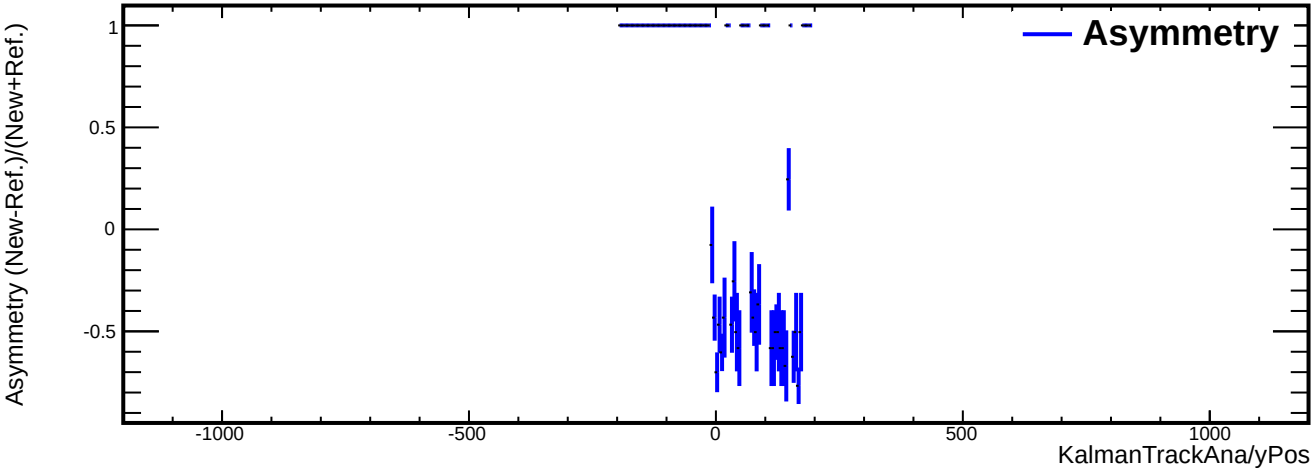

KS 0.00387155, chi2 4.67223e-12
2013-06-15
2013-06-16
KalmanTrackAna/zPosEnd

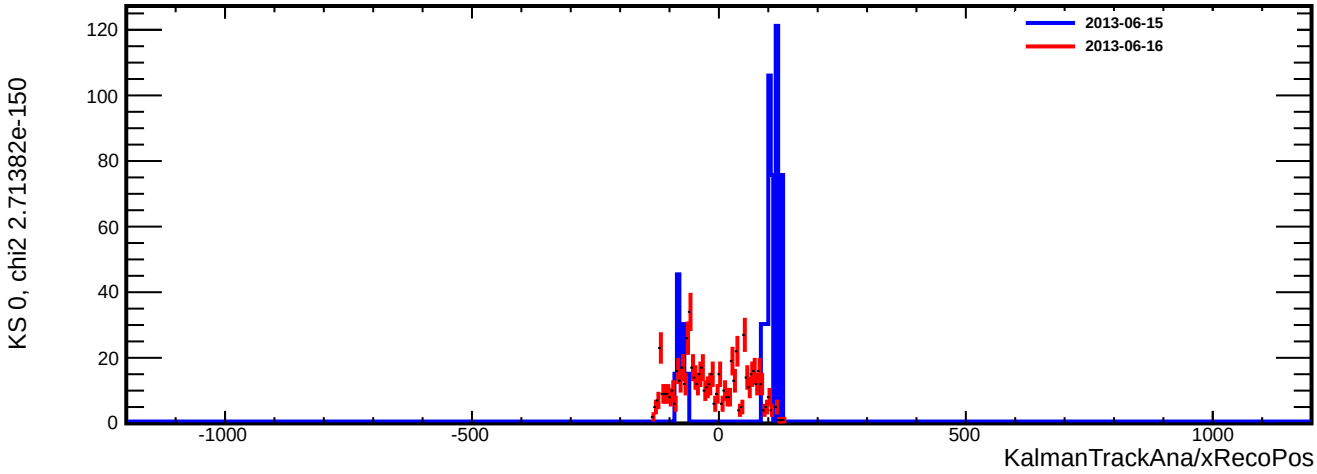

Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
KalmanTrackAna/zPosEnd

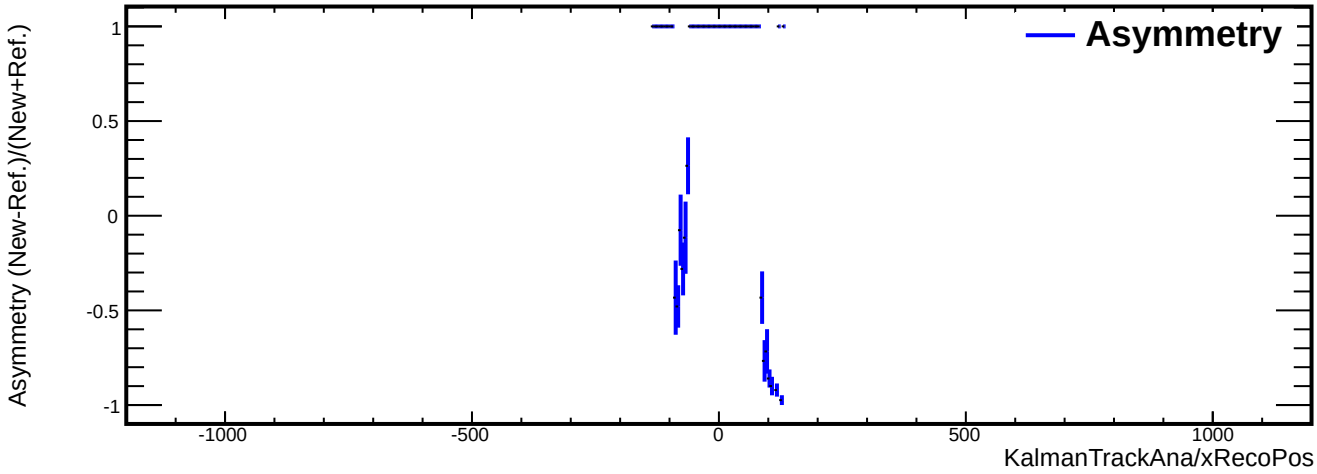

KS 0, chi2 7.18036e-121
100
80
60
40
20
0
-1000
-500
0
500
1000
KalmanTrackAna/xPos
2013-06-15
2013-06-16

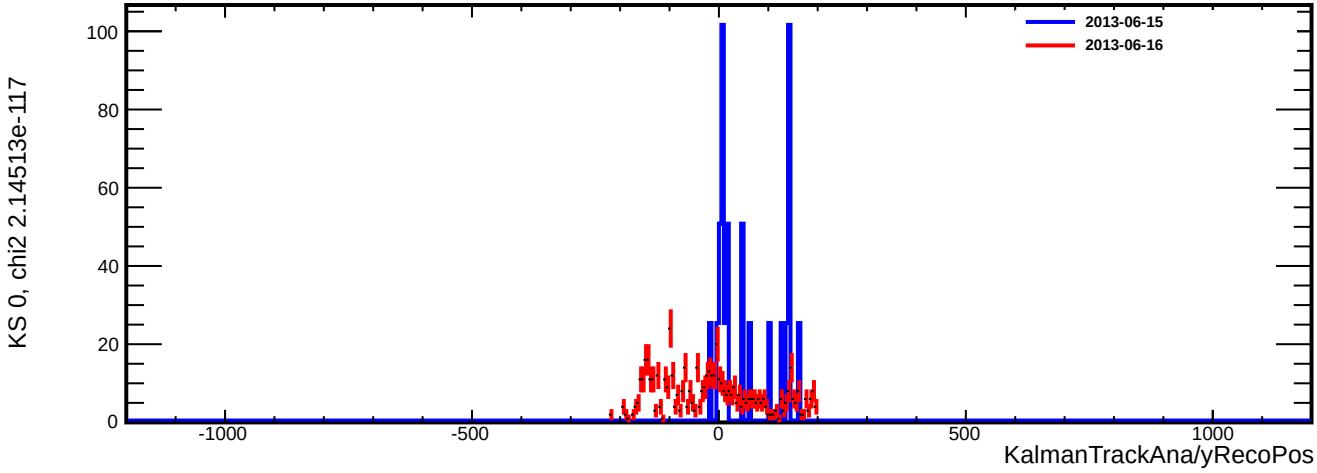

Asymmetry (New-Ref.)/(New+Ref.)
1
0.5
0
-0.5
-1
-1000
-500
0
500
1000
KalmanTrackAna/xPos
Asymmetry

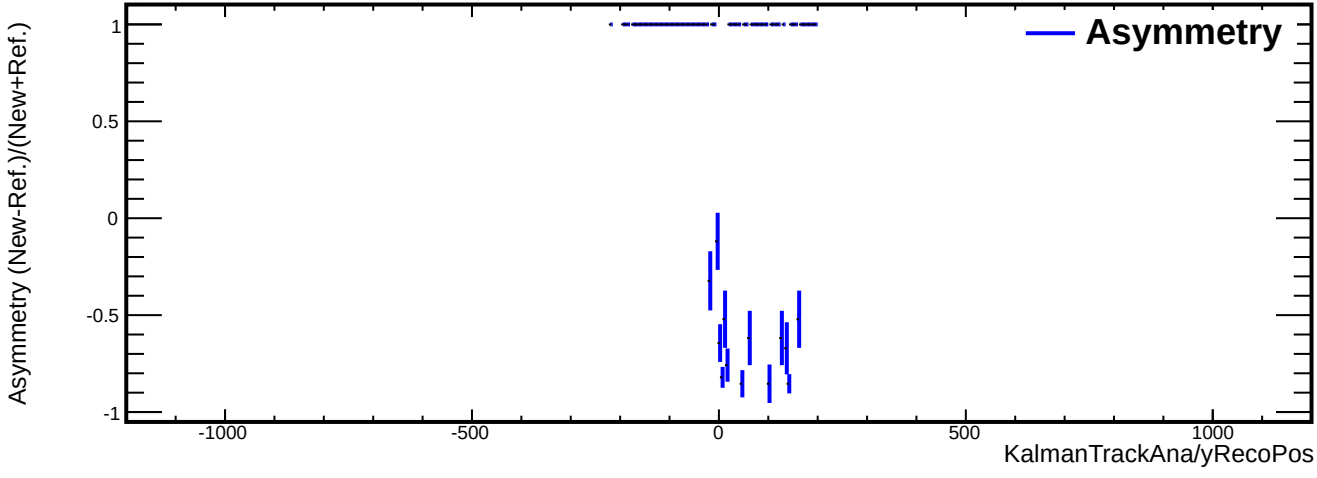

KS 0, chi2 1.9546e-85
60
40
20
0
-1000
-500
0
500
1000
KalmanTrackAna/yPos
2013-06-15
2013-06-16

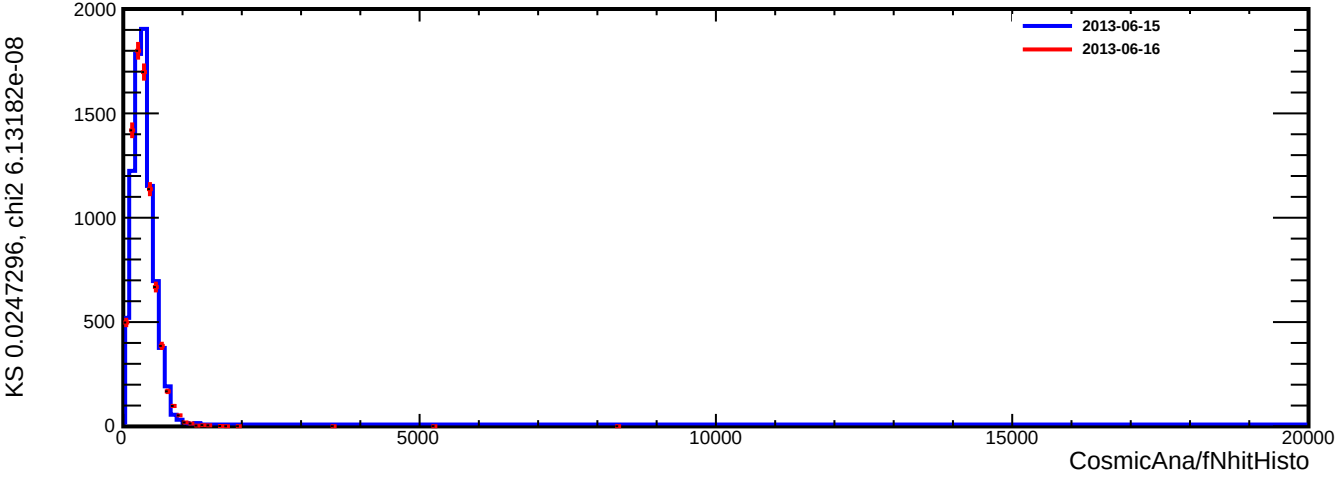

Asymmetry (New-Ref.)/(New+Ref.)
1
0.5
0
-0.5
-1000
-500
0
500
1000
KalmanTrackAna/yPos
Asymmetry

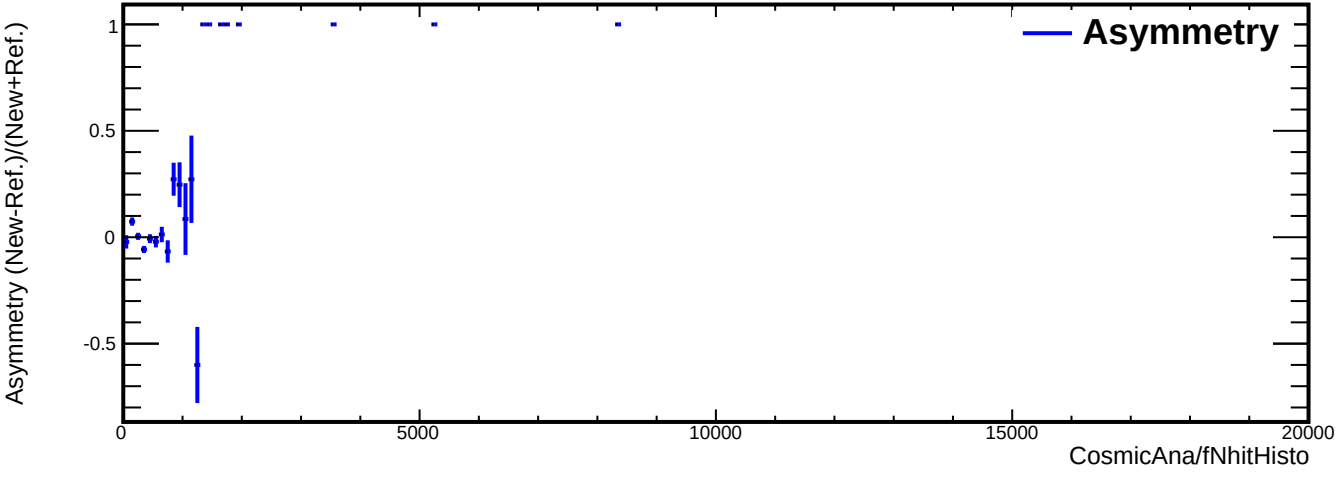

KS 0, chi2 2.71382e-150
2013-06-15
2013-06-16
KalmanTrackAna/xRecoPos

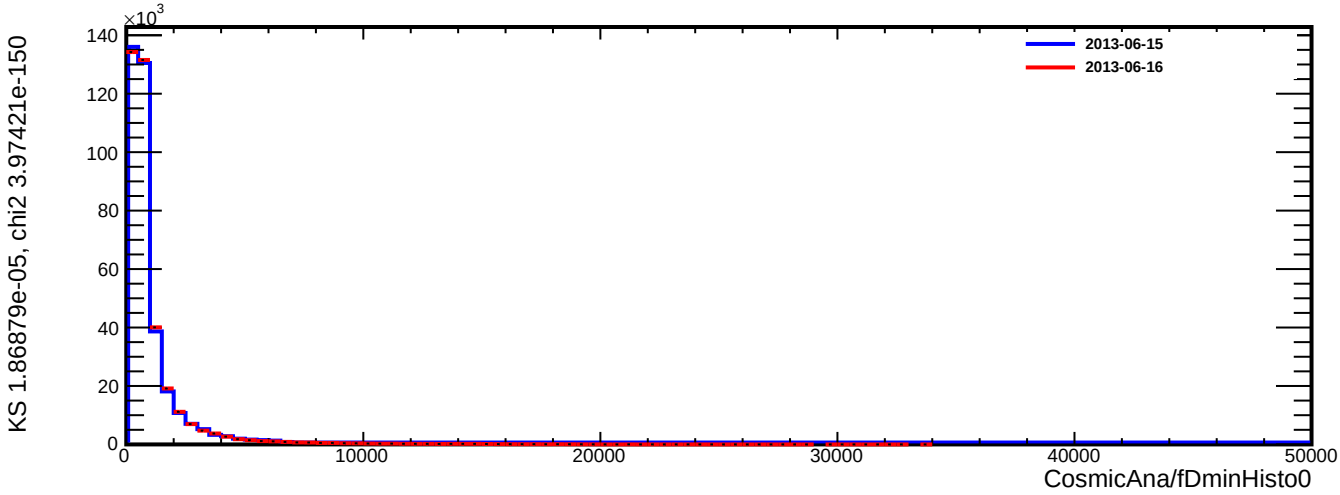

Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
KalmanTrackAna/xRecoPos

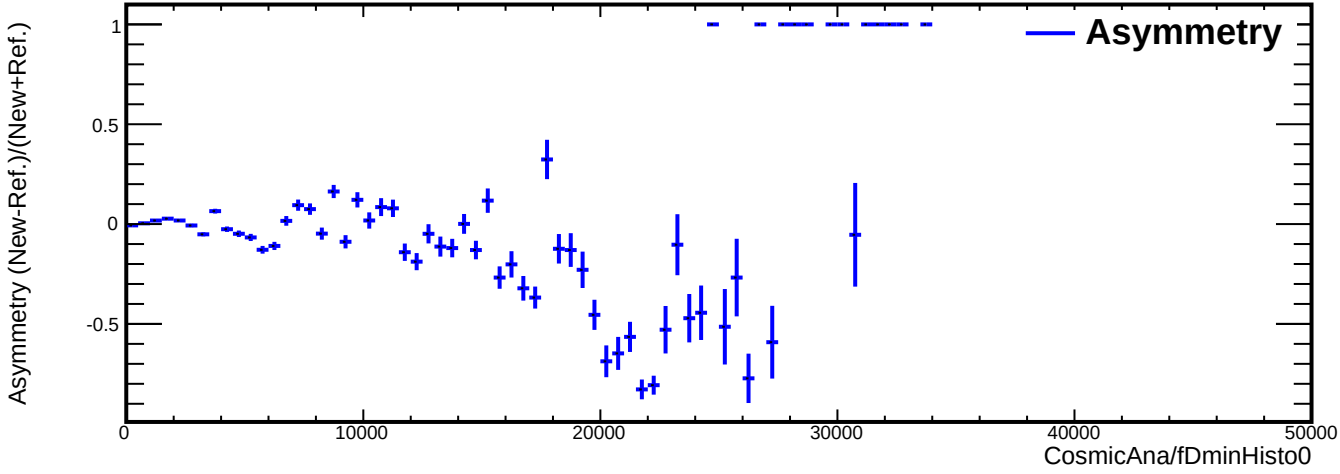

KS 0, chi2 2.14513e-117
100
80
60
40
20
0
-1000
-500
0
500
1000
KalmanTrackAna/yRecoPos
2013-06-15
2013-06-16

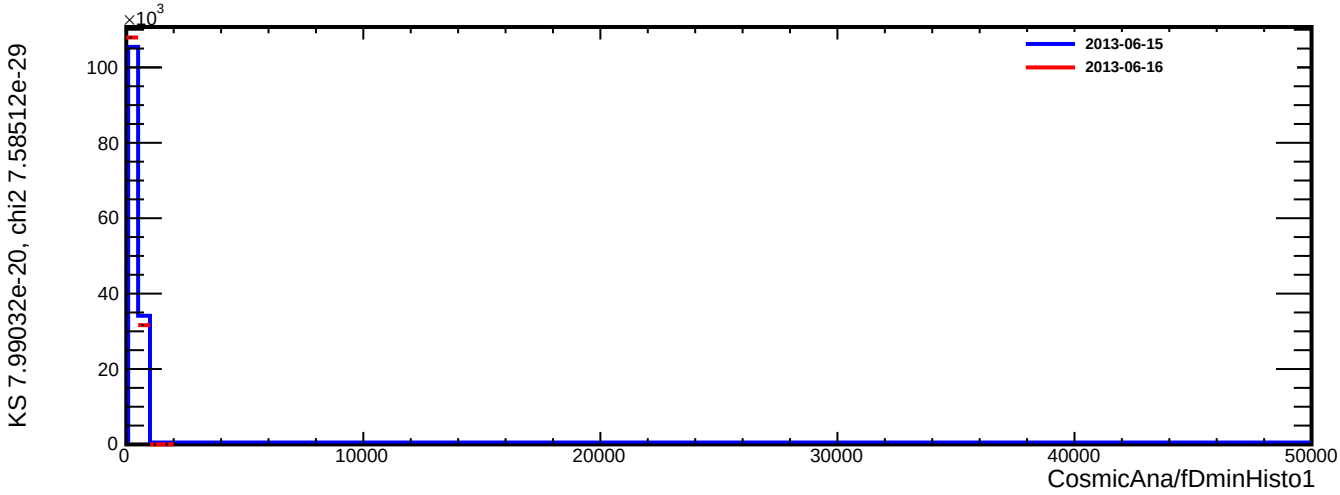

Asymmetry (New-Ref.)/(New+Ref.)
1
0.5
0
-0.5
-1
-1000
-500
0
500
1000
KalmanTrackAna/yRecoPos
Asymmetry


KS 0.0247296, chi2 6.13182e-08
2013-06-15
2013-06-16
2000
1500
1000
500
0
0
5000
10000
15000
20000
CosmicAna/fNhitHisto


Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
1
0.5
0
-0.5
0
5000
10000
15000
20000
CosmicAna/fNhitHisto


KS 1.86879e-05, chi2 3.97421e-150
×10^3
140
120
100
80
60
40
20
0
0
10000
20000
30000
40000
50000
CosmicAna/fDminHisto0
2013-06-15
2013-06-16


Asymmetry (New-Ref.)/(New+Ref.)
1
0.5
0
-0.5
0
10000
20000
30000
40000
50000
CosmicAna/fDminHisto0
Asymmetry


KS 7.99032e-20, chi2 7.58512e-29
×10^3
100
80
60
40
20
0
0
10000
20000
30000
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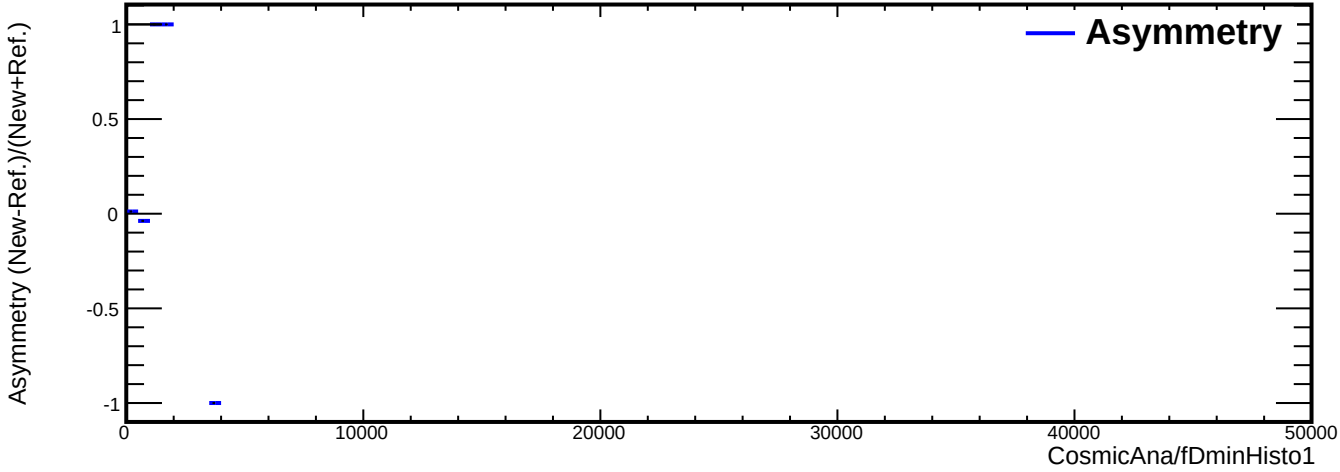
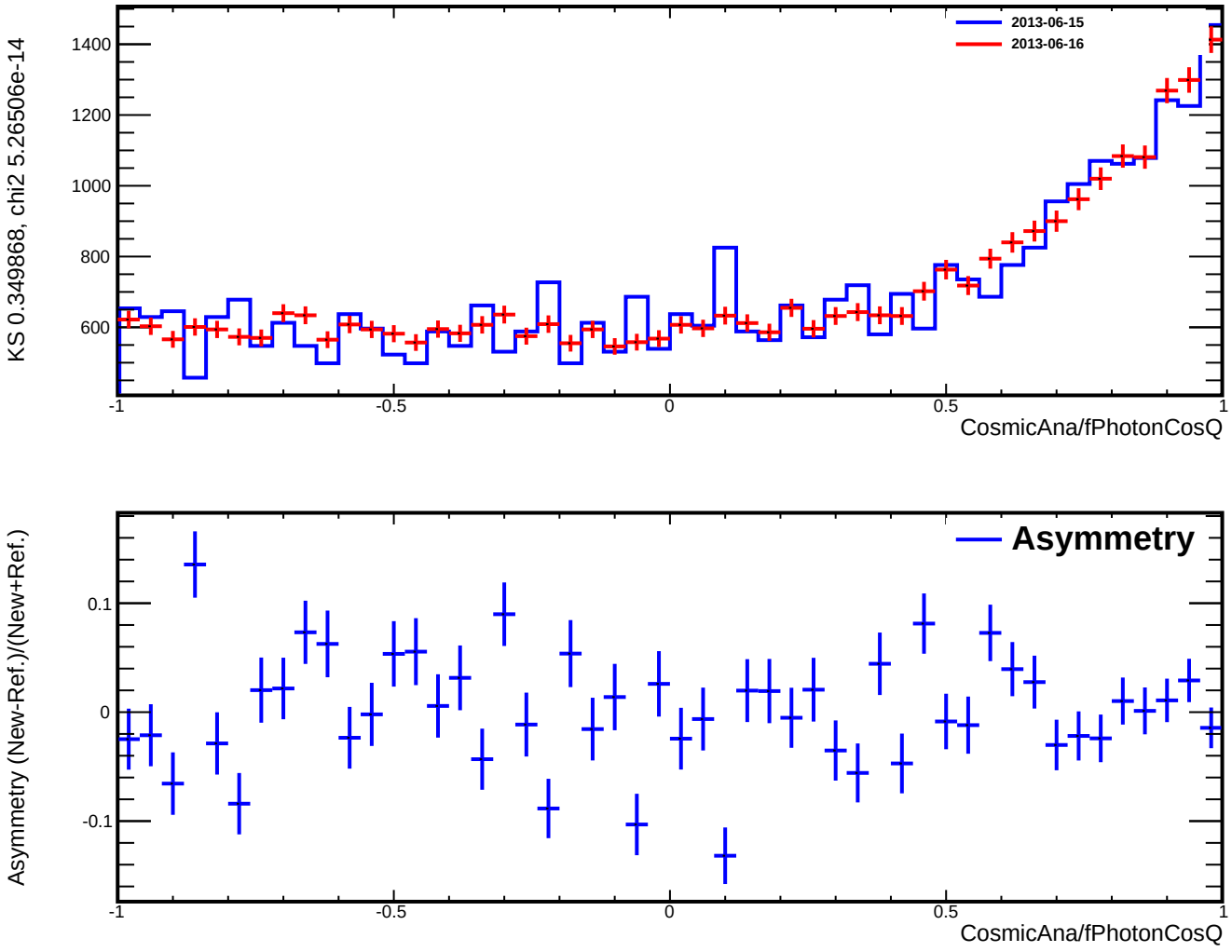
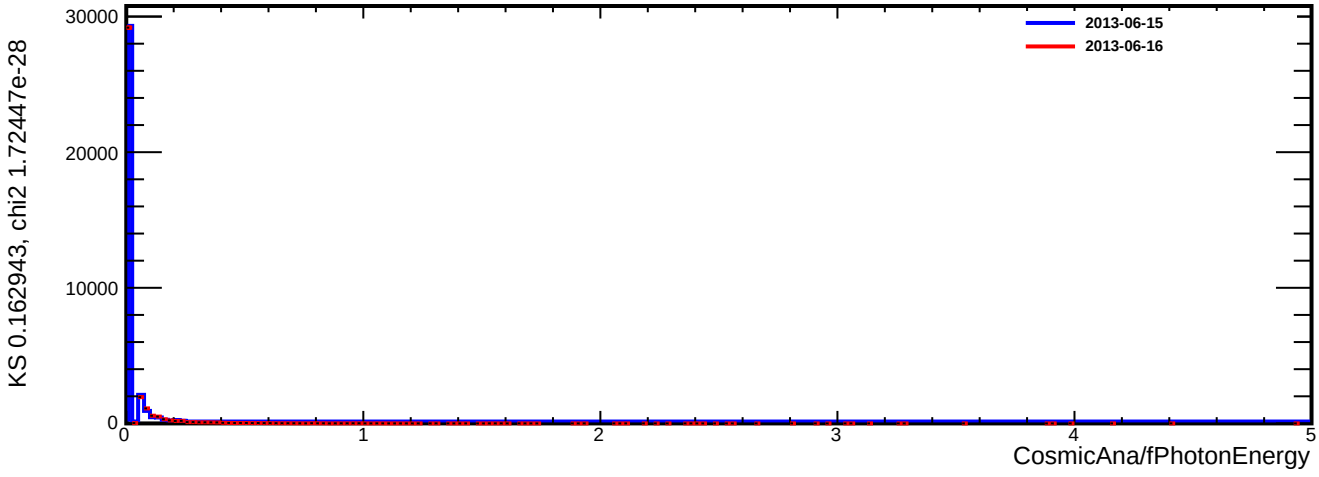
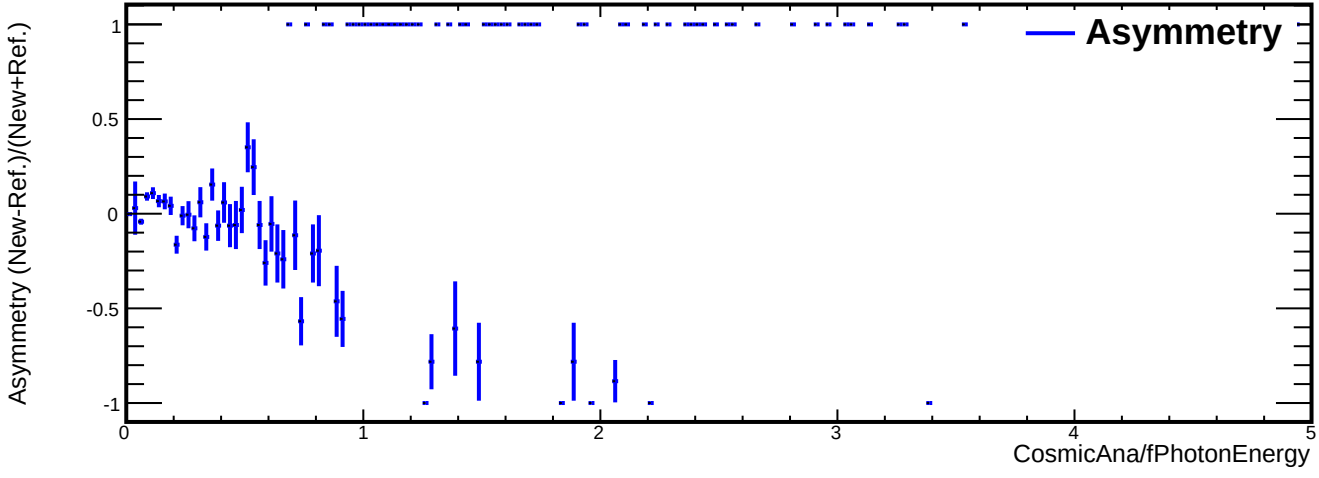
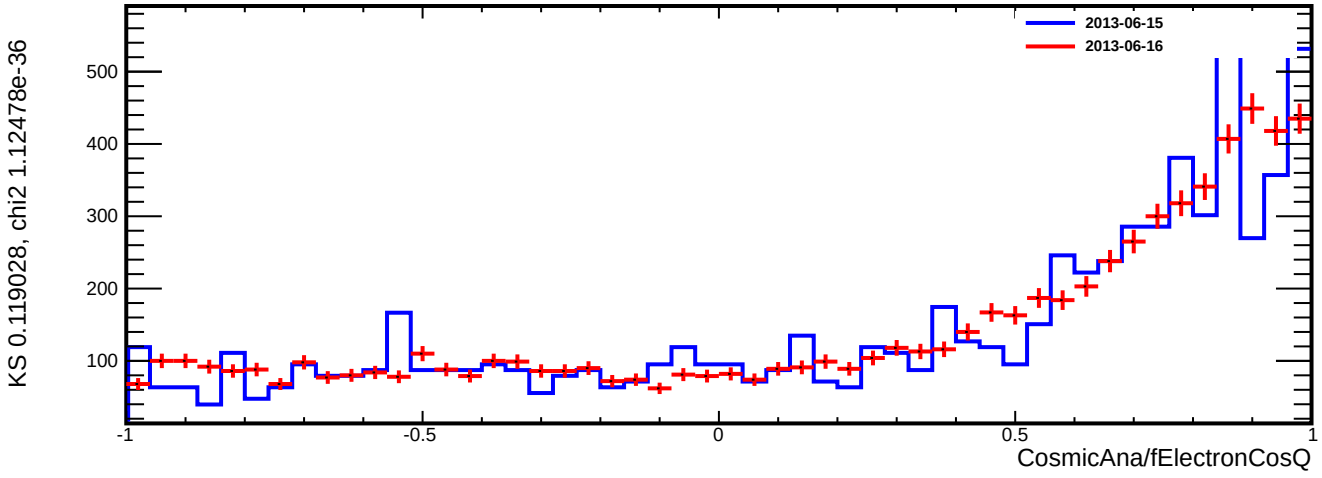
CosmicAna/fDminHisto1
2013-06-15
2013-06-16

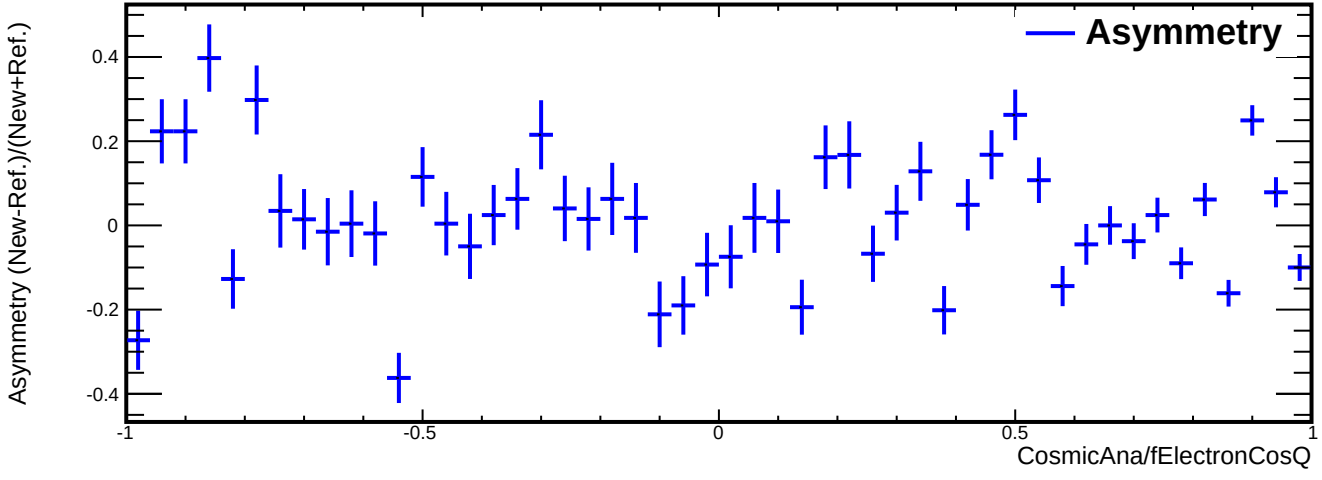

Asymmetry (New-Ref.)/(New+Ref.)
1
0.5
0
-0.5
-1
0
10000
20000
30000
40000
50000
CosmicAna/fDminHisto1
Asymmetry

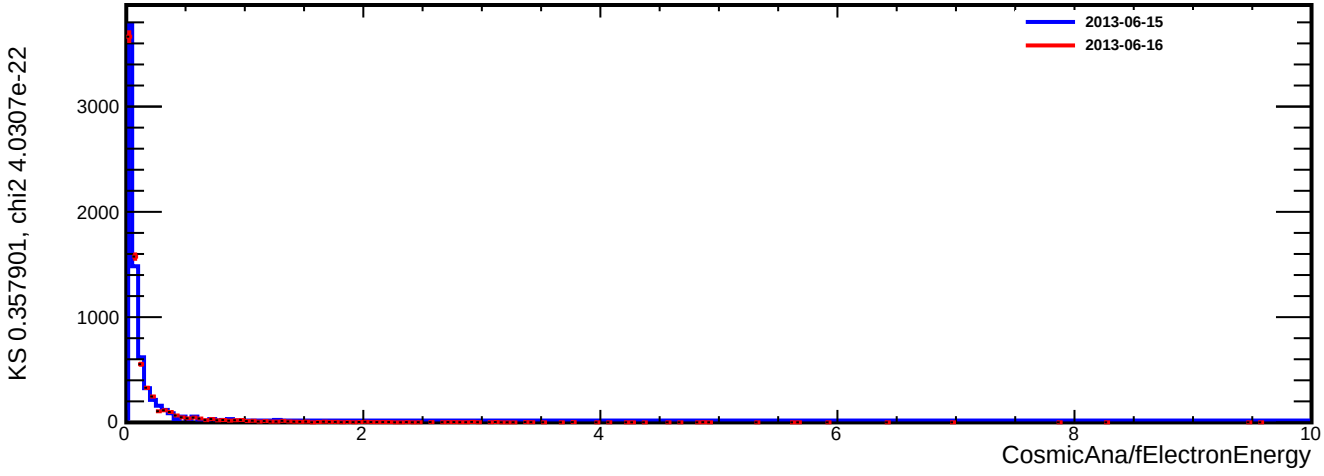

KS 0.349868, chi2 5.26506e-14
2013-06-15
2013-06-16
1400
1200
1000
800
600
-1
-0.5
0
0.5
1
CosmicAna/fPhotonCosQ
Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
0.1
0
-0.1
-1
-0.5
0
0.5
1
CosmicAna/fPhotonCosQ

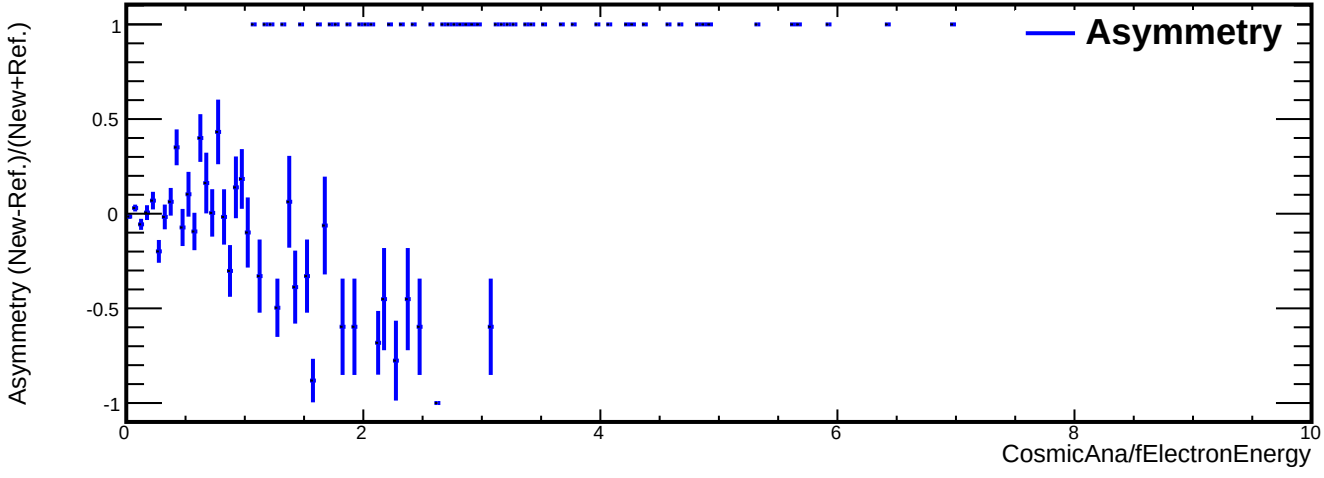

KS 0.162943, chi2 1.72447e-28
30000
20000
10000
0
0
1
2
3
4
5
CosmicAna/fPhotonEnergy
2013-06-15
2013-06-16

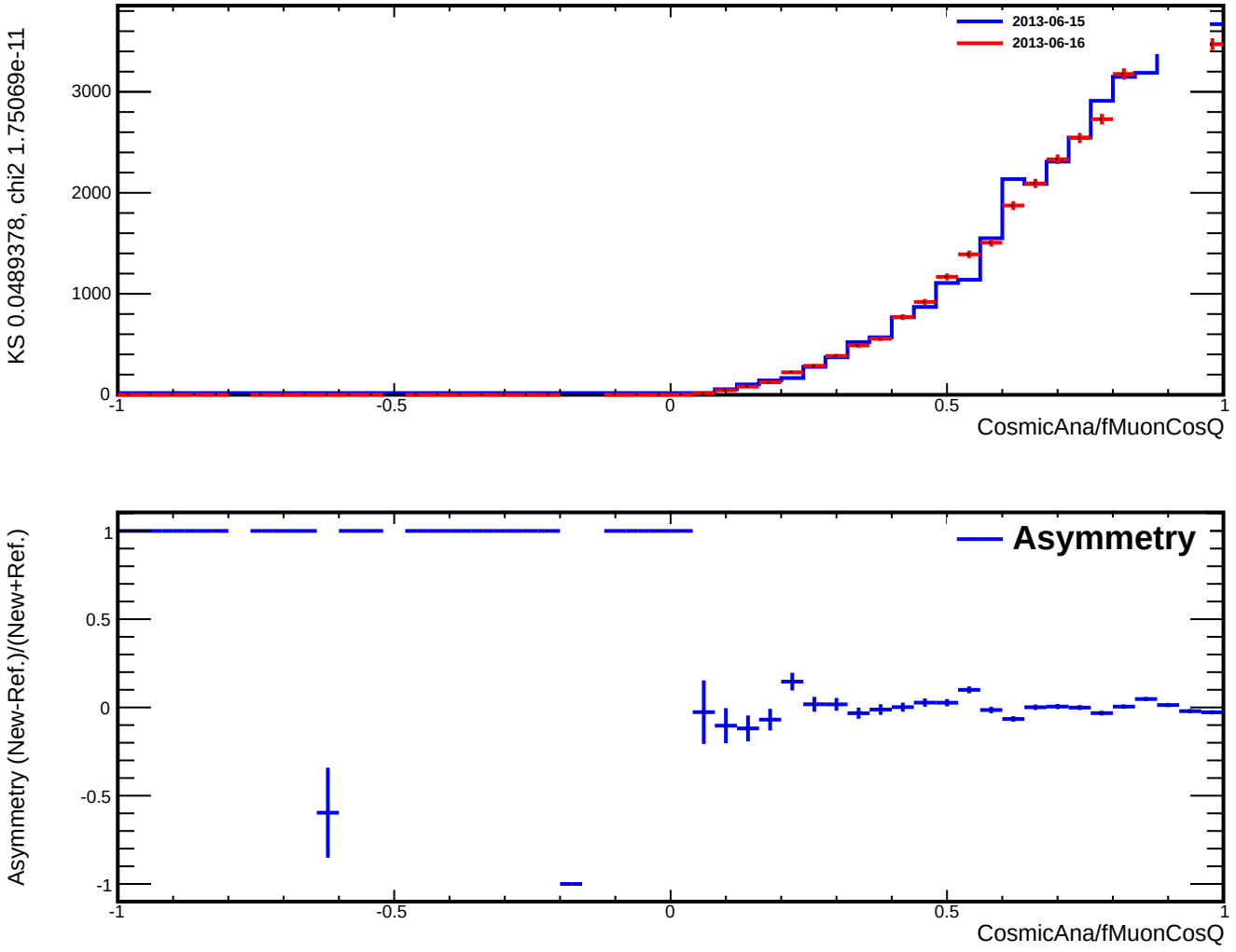

Asymmetry (New-Ref.)/(New+Ref.)
1
0.5
0
-0.5
-1
0
1
2
3
4
5
CosmicAna/fPhotonEnergy
Asymmetry

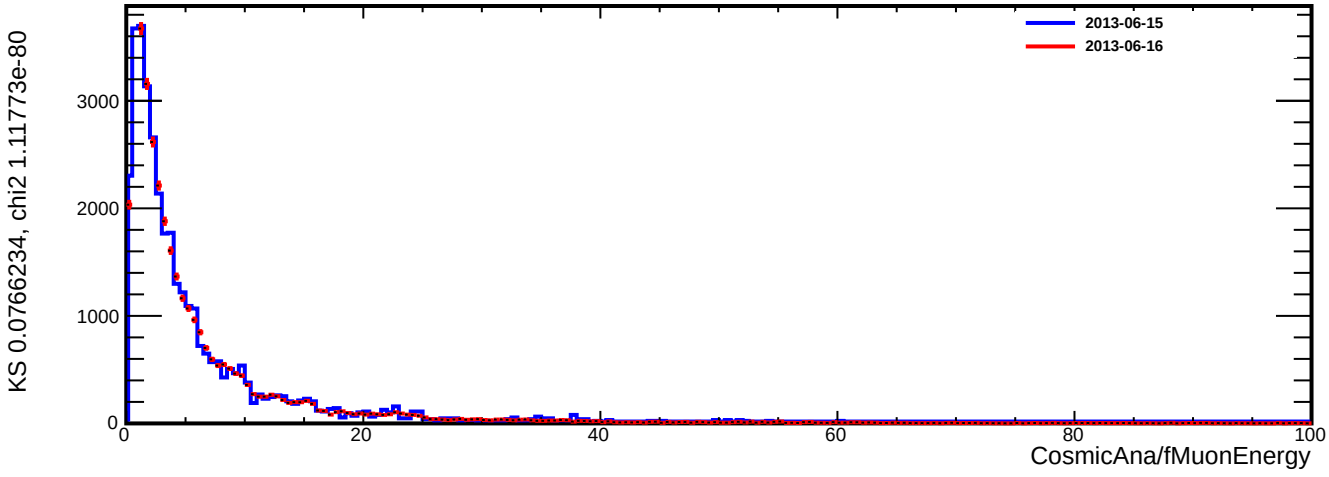

KS 0.119028, chi2 1.12478e-36
2013-06-15
2013-06-16
500
400
300
200
100
-1
-0.5
0
0.5
1
CosmicAna/fElectronCosQ

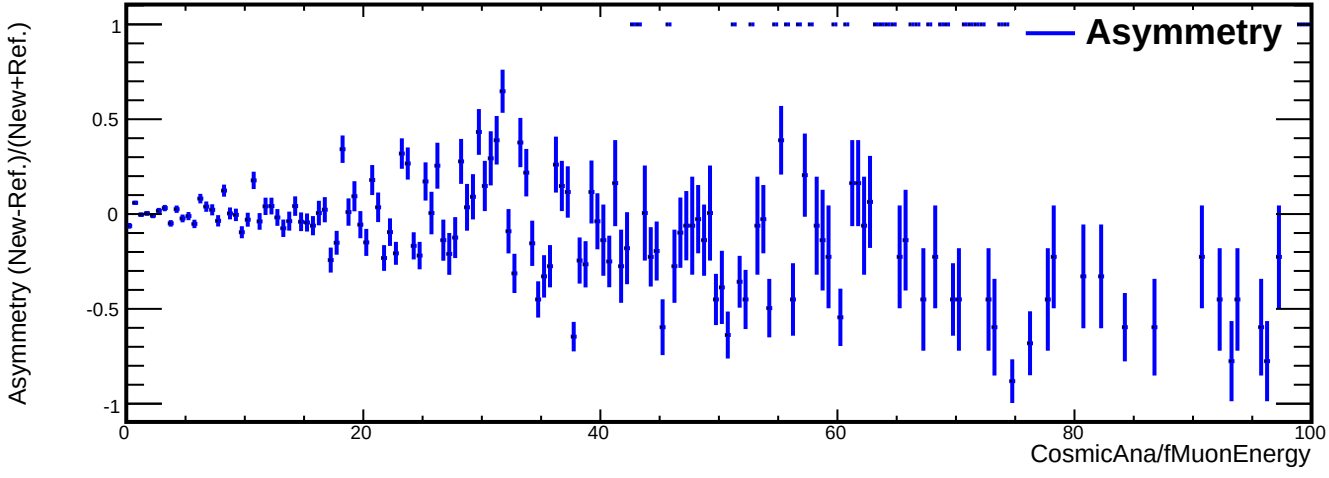

Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
0.4
0.2
0
-0.2
-0.4
-1
-0.5
0
0.5
1
CosmicAna/fElectronCosQ

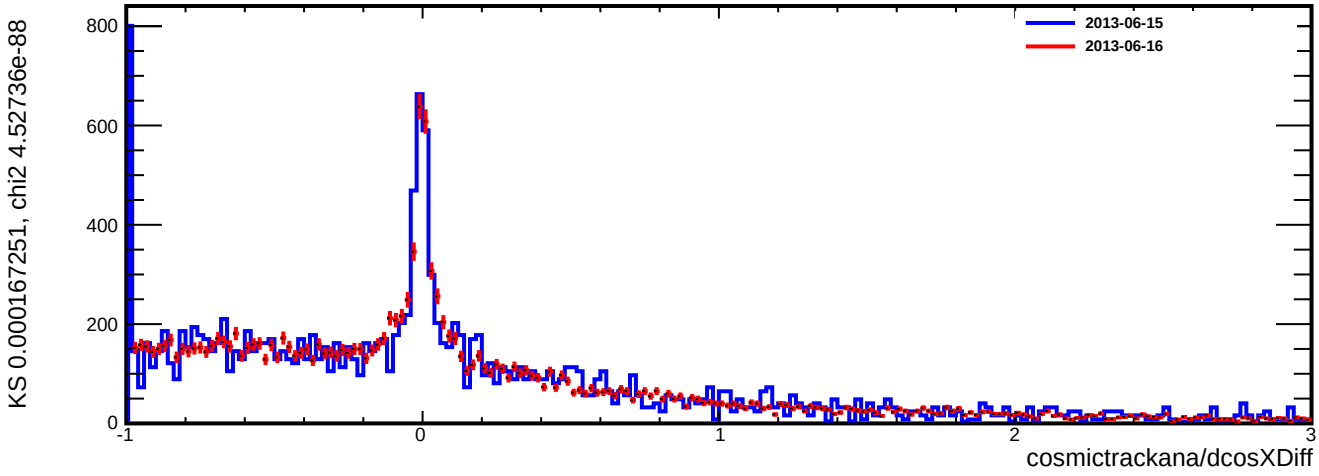

KS 0.357901, chi2 4.0307e-22
2013-06-15
2013-06-16
3000
2000
1000
0
0
2
4
6
8
10
CosmicAna/fElectronEnergy

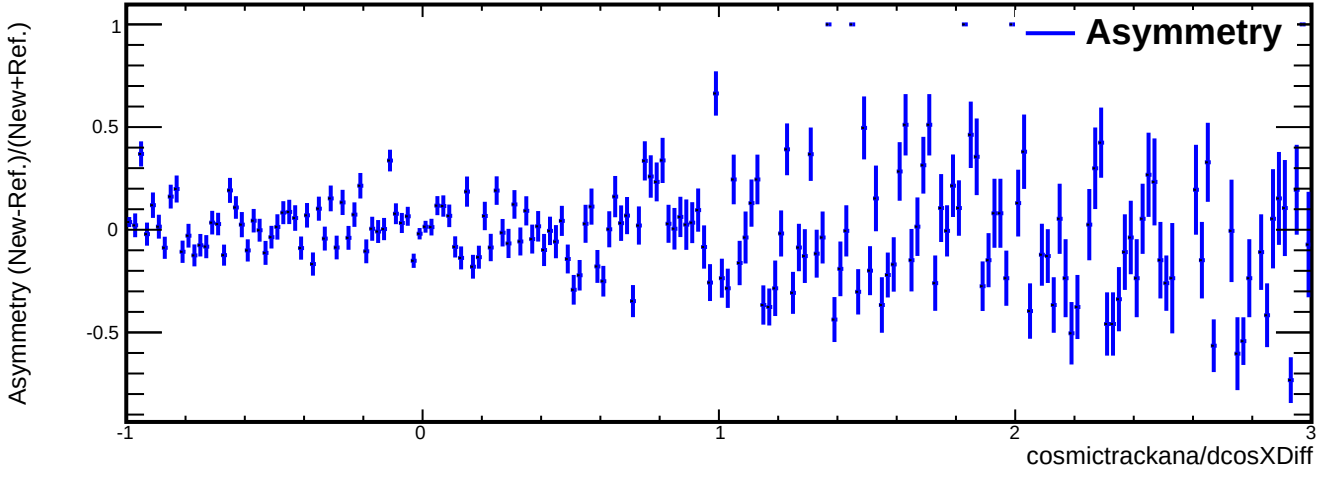

Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
1
0.5
0
-0.5
-1
0
2
4
6
8
10
CosmicAna/fElectronEnergy

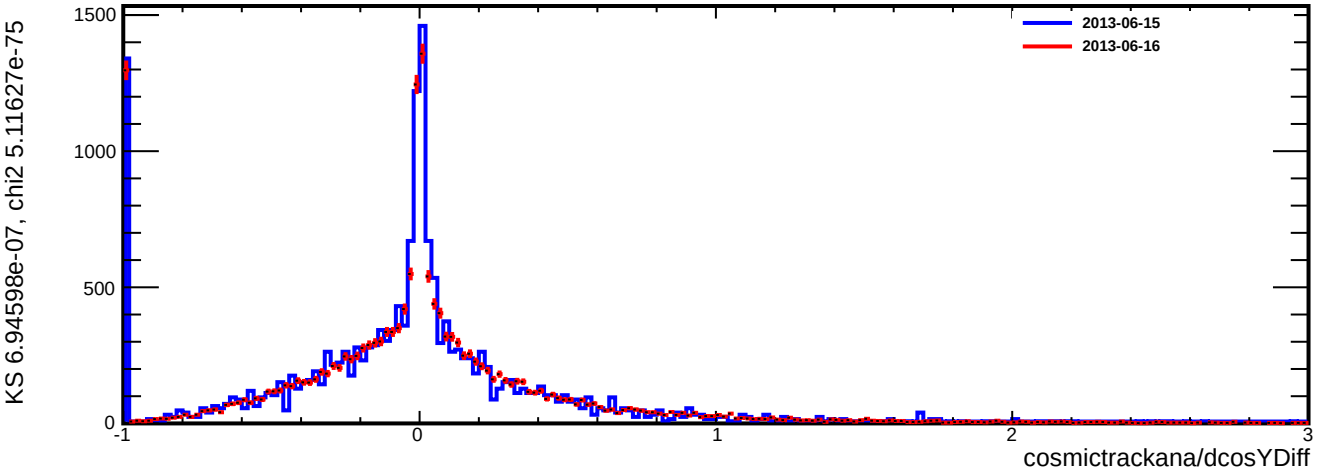

KS 0.0489378, chi2 1.75069e-11
2013-06-15
2013-06-16
3000
2000
1000
0
-1
-0.5
0
0.5
1
CosmicAna/fMuonCosQ
Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
1
0.5
0
-0.5
-1
-1
-0.5
0
0.5
1
CosmicAna/fMuonCosQ

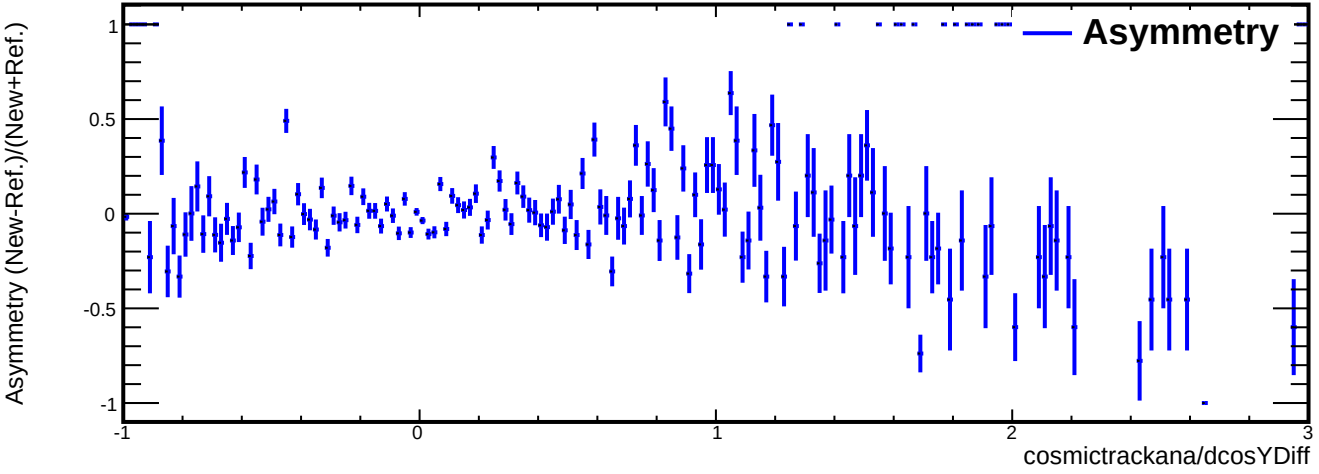

KS 0.0766234, chi2 1.11773e-80
2013-06-15
2013-06-16
3000
2000
1000
0
0
20
40
60
80
100
CosmicAna/fMuonEnergy

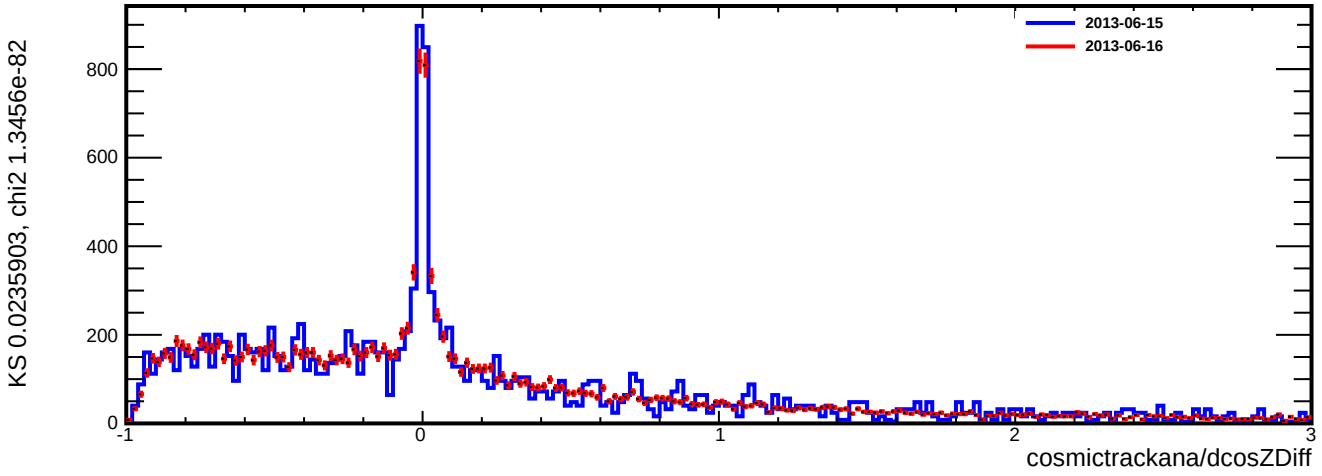

Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
1
0.5
0
-0.5
-1
0
20
40
60
80
100
CosmicAna/fMuonEnergy

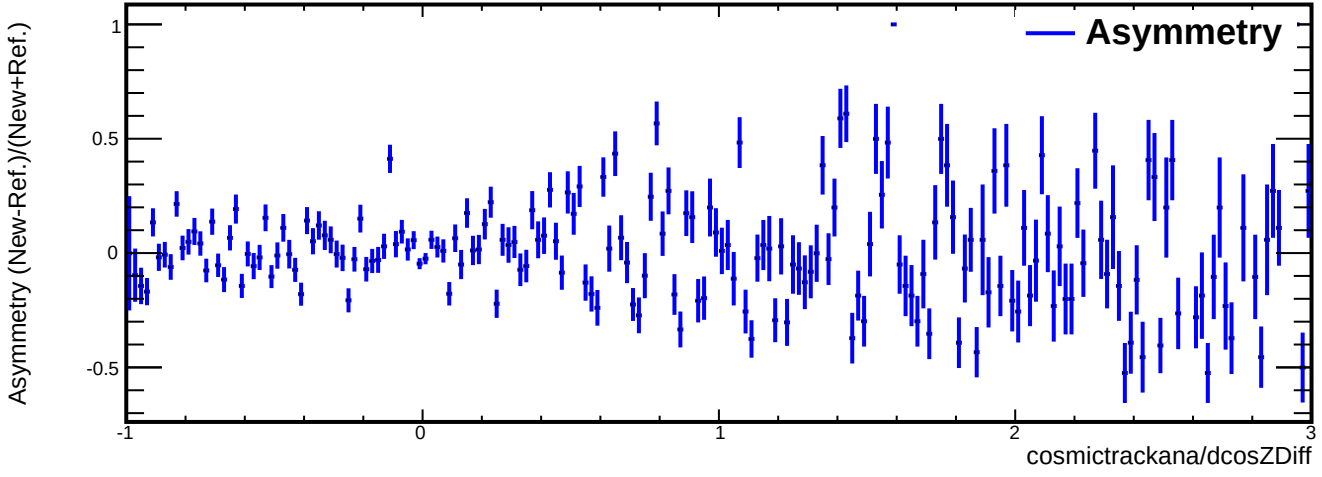

KS 0.000167251, chi2 4.52736e-88
2013-06-15
2013-06-16
cosmictrackana/dcosXDiff

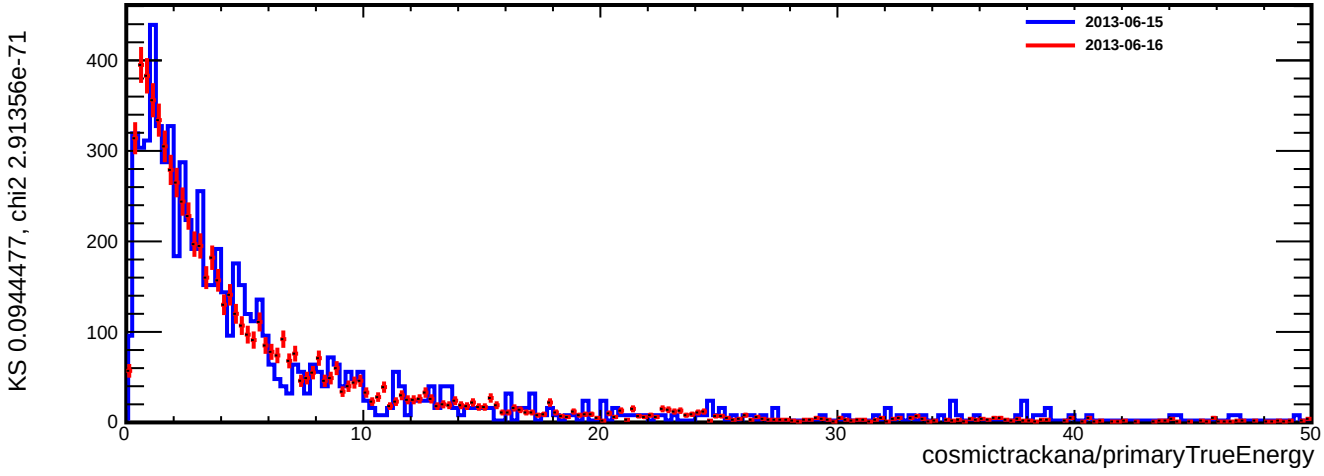

Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
cosmictrackana/dcosXDiff

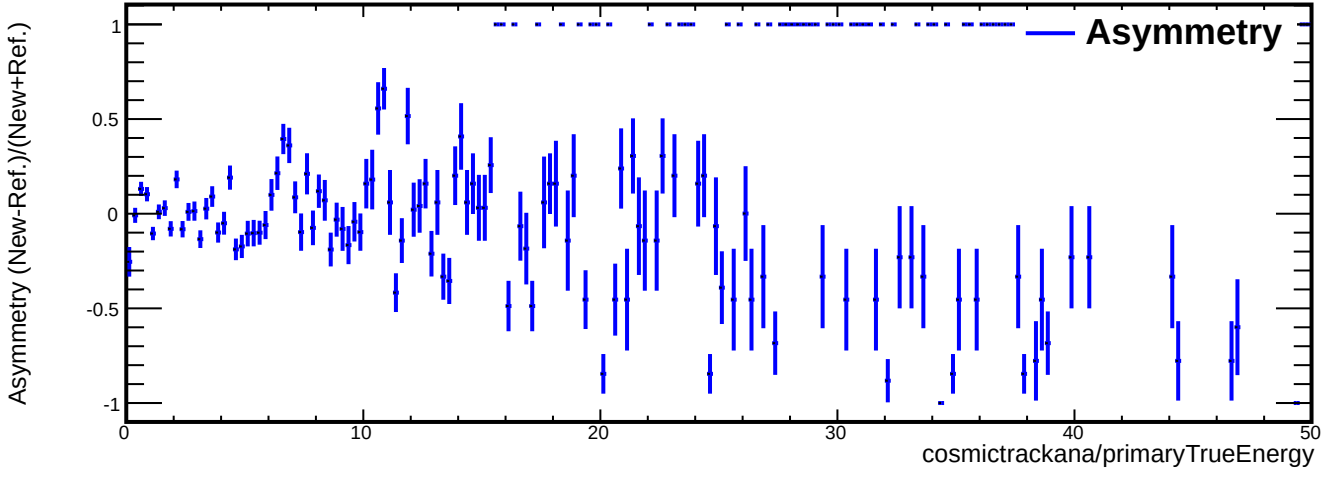

KS 6.94598e-07, chi2 5.11627e-75
1500
1000
500
0
-1
0
1
2
3
cosmictrackana/dcosYDiff
2013-06-15
2013-06-16

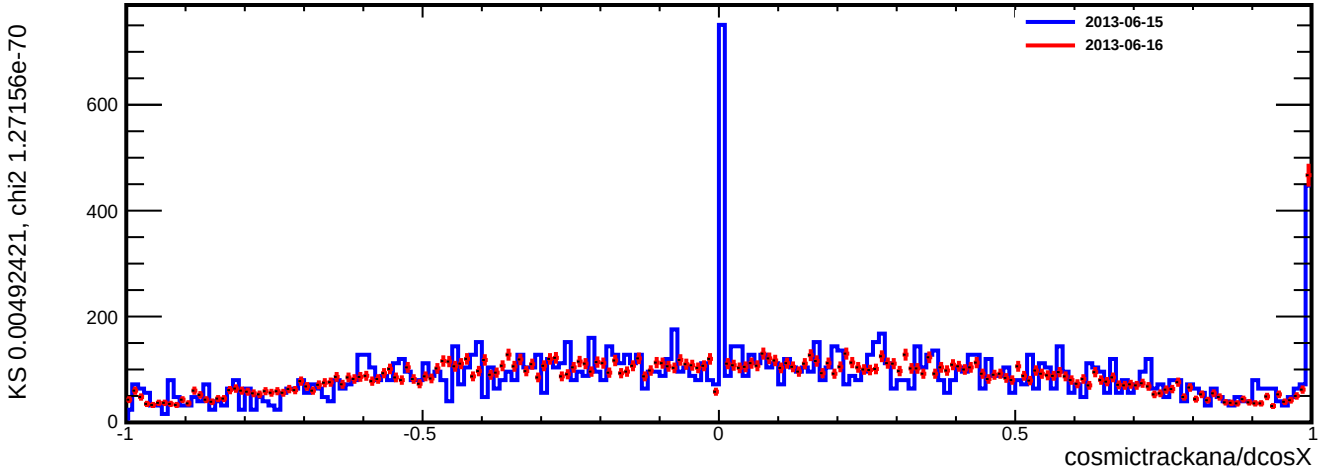

Asymmetry (New-Ref.)/(New+Ref.)
1
0.5
0
-0.5
-1
-1
0
1
2
3
cosmictrackana/dcosYDiff
Asymmetry

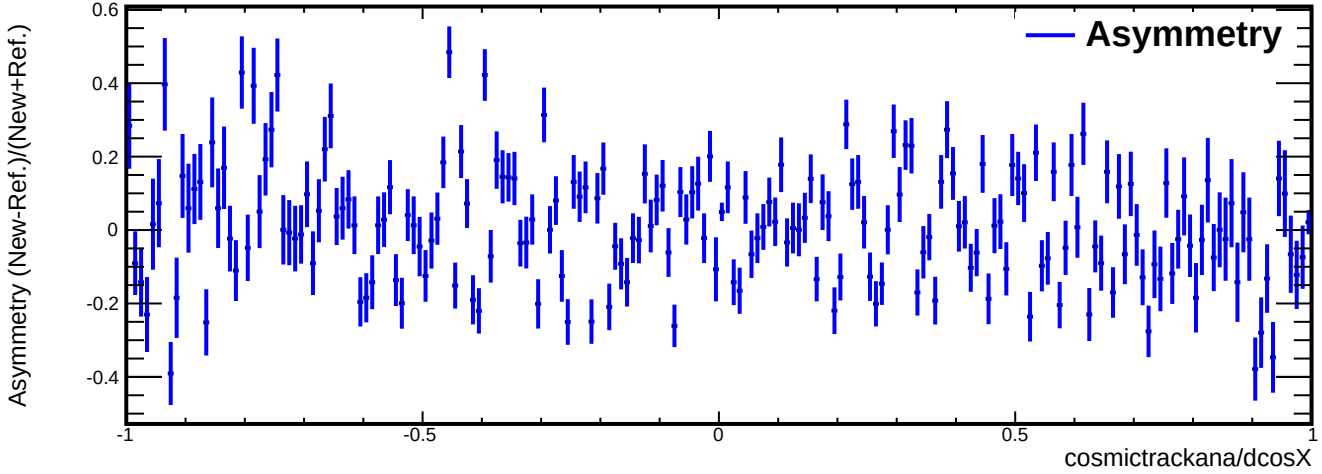

KS 0.0235903, chi2 1.3456e-82
2013-06-15
2013-06-16
800
600
400
200
0
-1
0
1
2
3
cosmictrackana/dcosZDiff

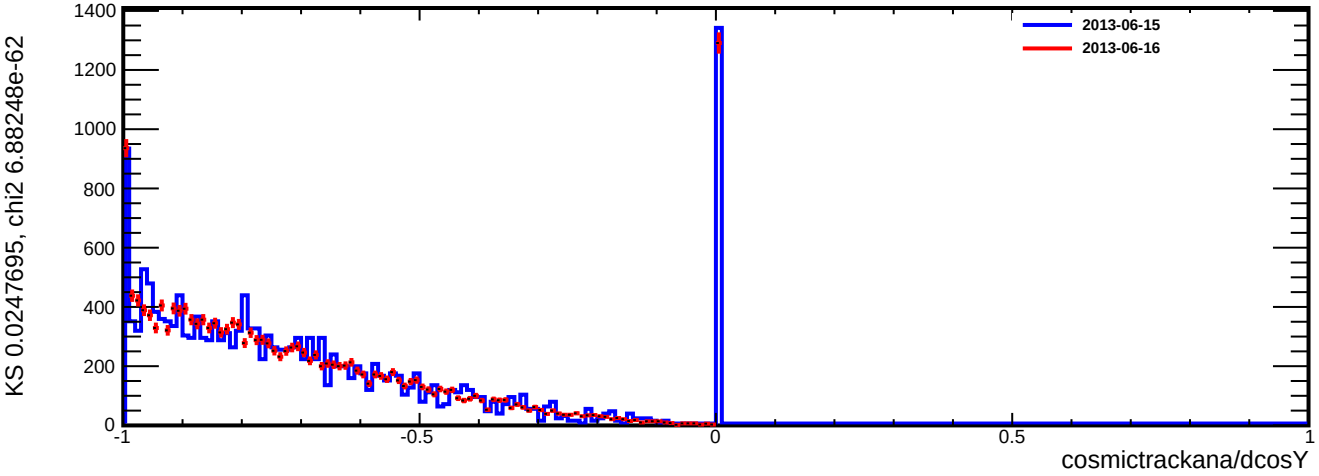

Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
1
0.5
0
-0.5
-1
0
1
2
3
cosmictrackana/dcosZDiff

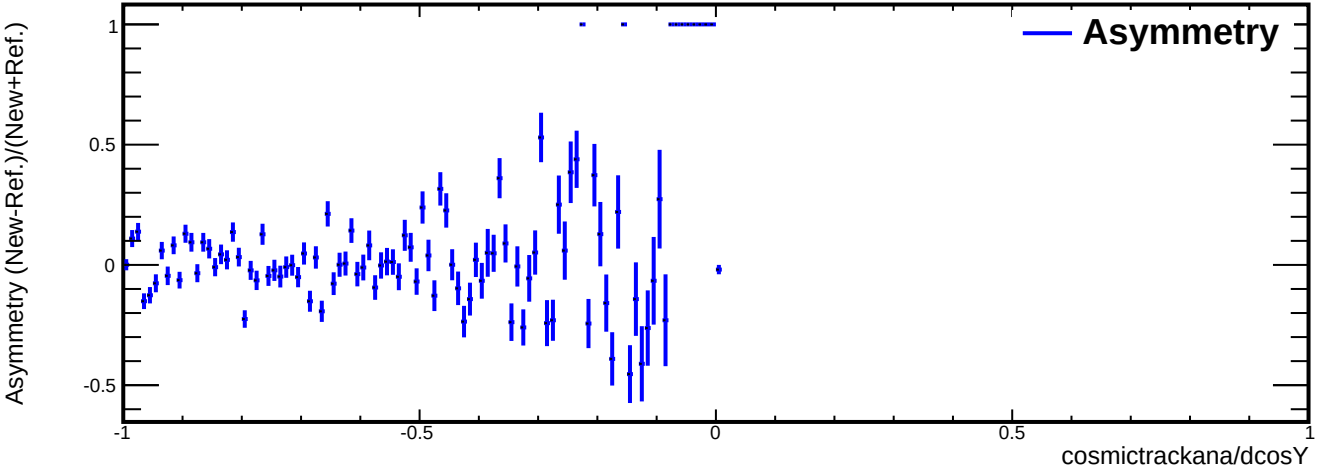

KS 0.0944477, chi2 2.91356e-71
2013-06-15
2013-06-16
400
300
200
100
0
0
10
20
30
40
50
cosmictrackana/primaryTrueEnergy

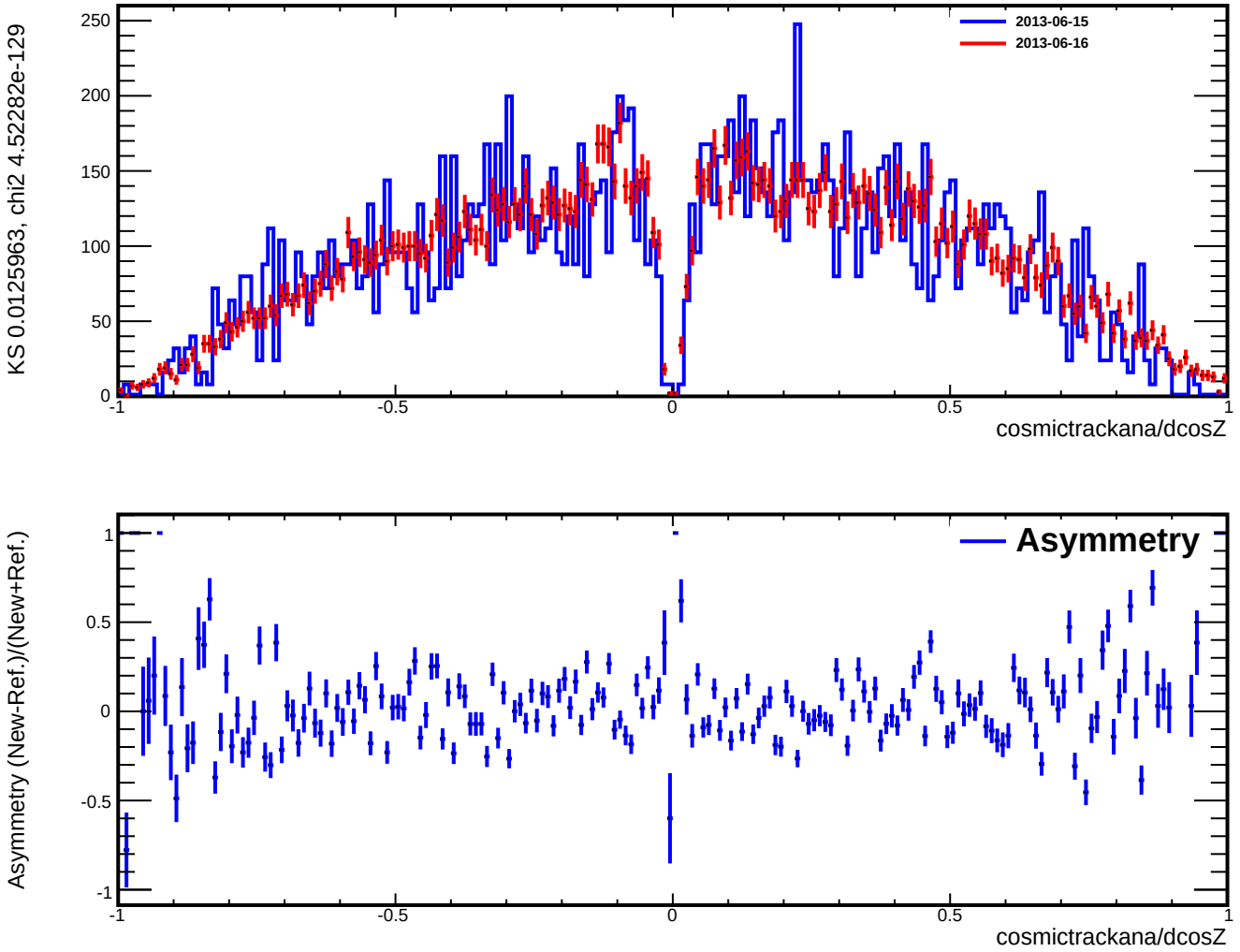

Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
1
0.5
0
-0.5
-1
0
10
20
30
40
50
cosmictrackana/primaryTrueEnergy

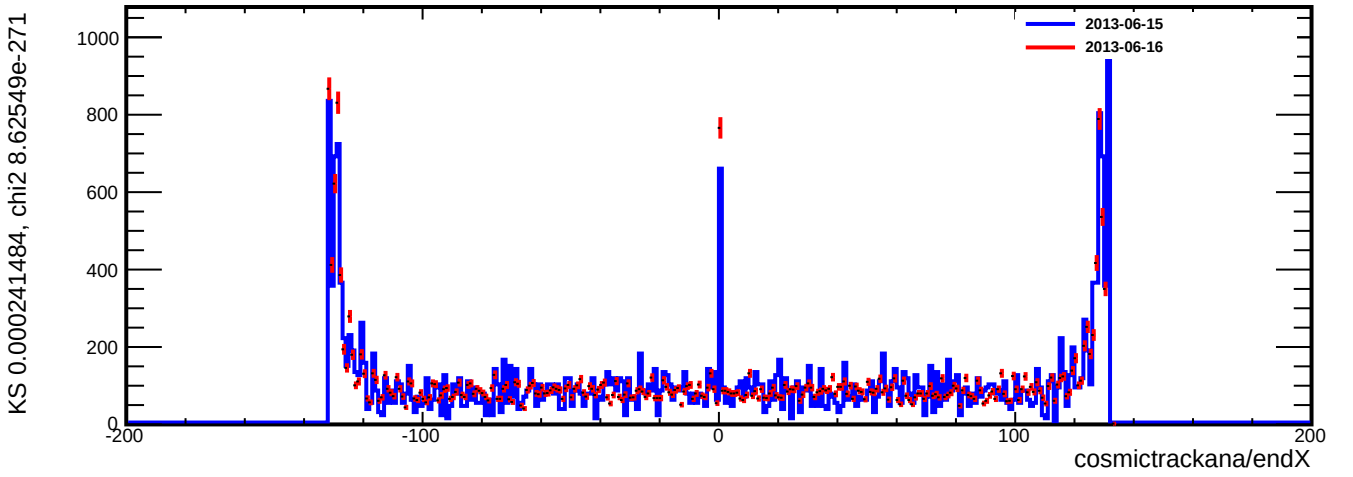

KS 0.00492421, chi2 1.27156e-70
2013-06-15
2013-06-16
600
400
200
0
-1
-0.5
0
0.5
1
cosmictrackana/dcosX

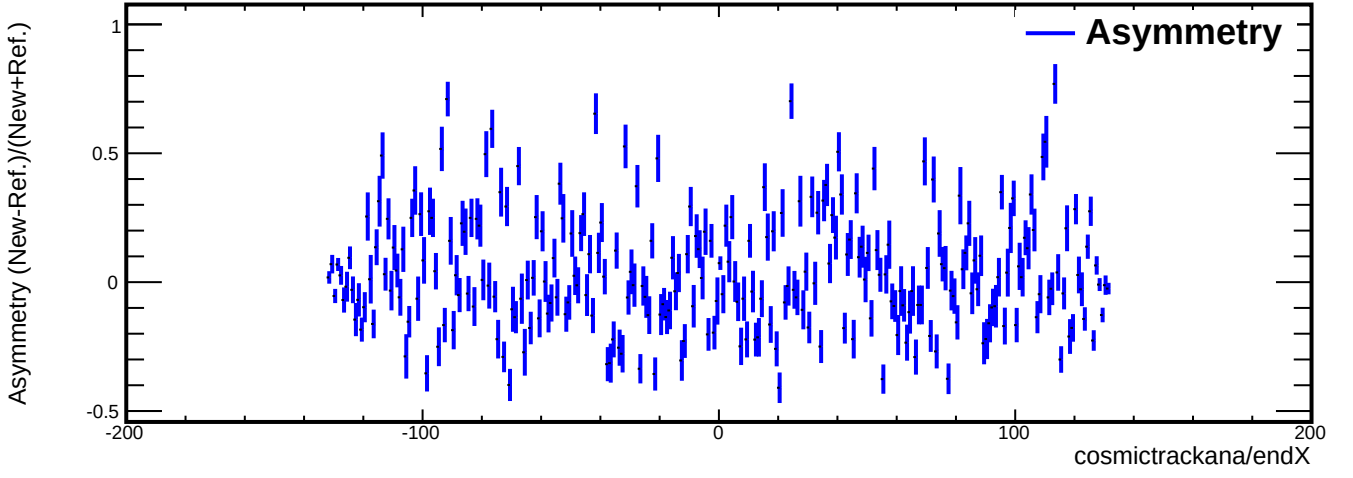

Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
0.6
0.4
0.2
0
-0.2
-0.4
-1
-0.5
0
0.5
1
cosmictrackana/dcosX

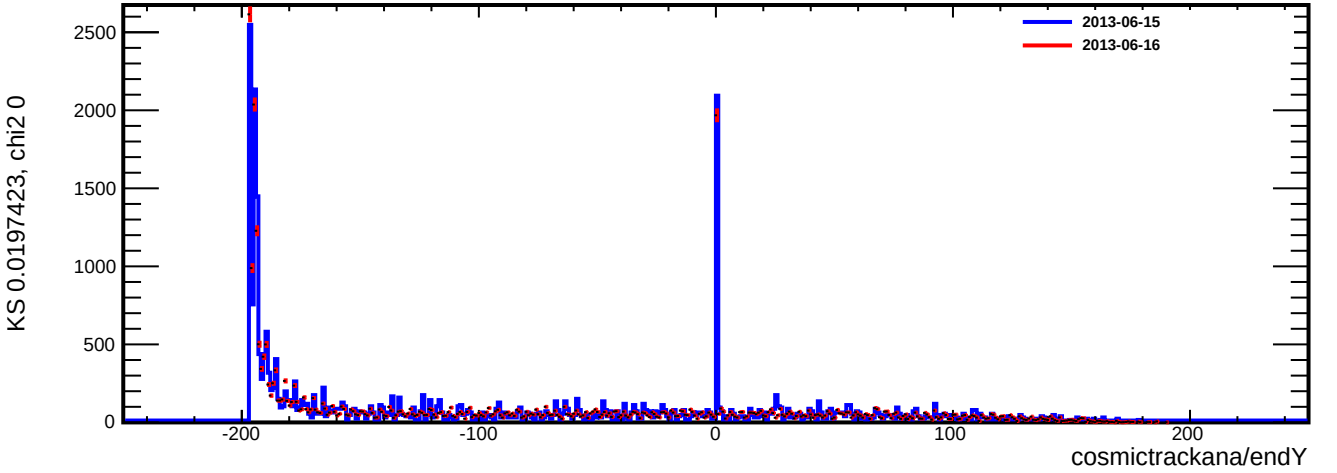

KS 0.0247695, chi2 6.88248e-62
2013-06-15
2013-06-16
cosmictrackana/dcosY

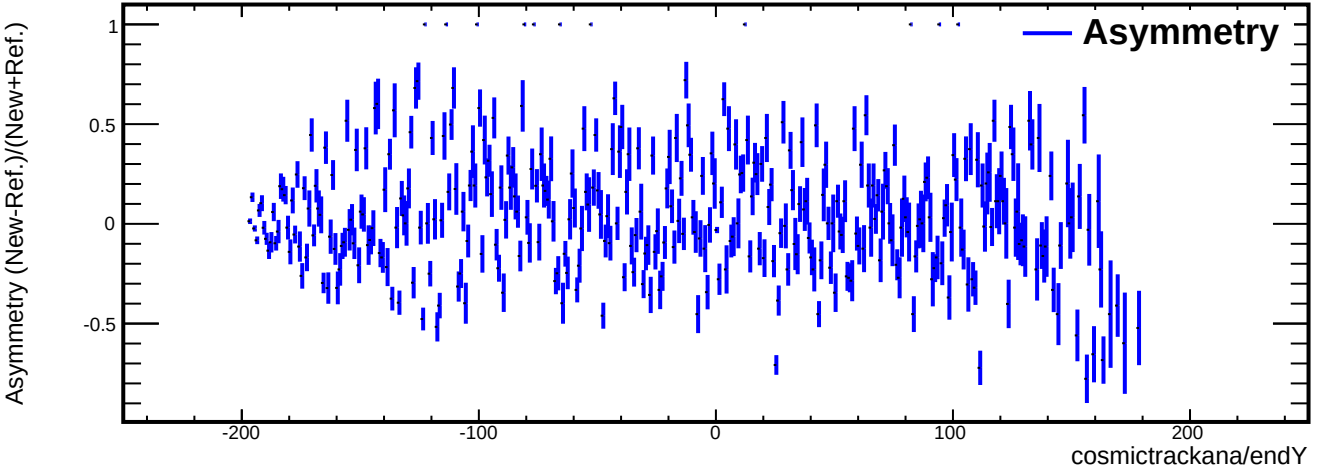

Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
cosmictrackana/dcosY

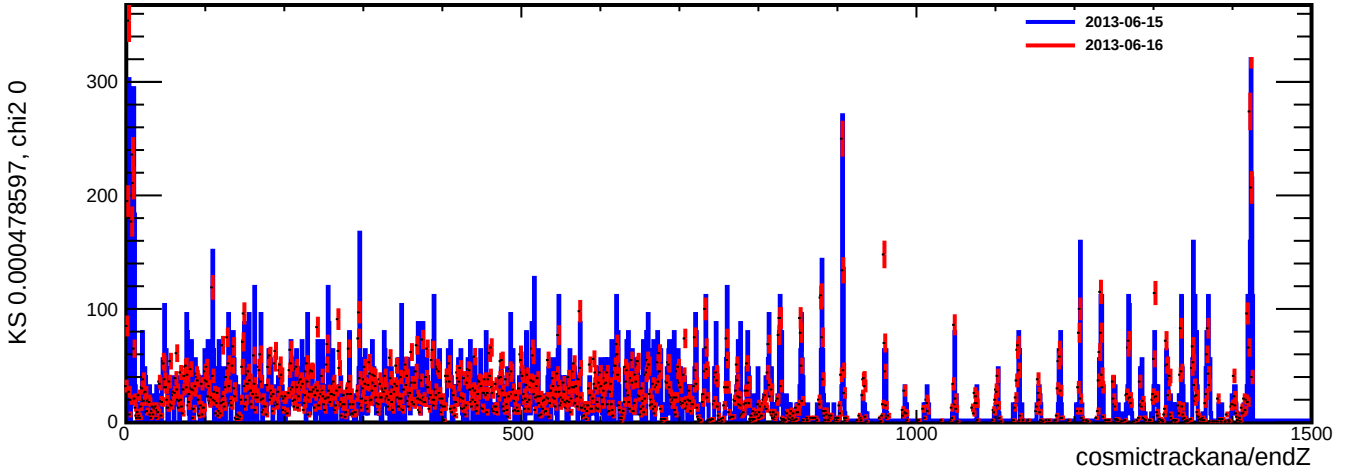

KS 0.0125963, chi2 4.52282e-129
2013-06-15
2013-06-16
cosmictrackana/dcosZ
Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
cosmictrackana/dcosZ

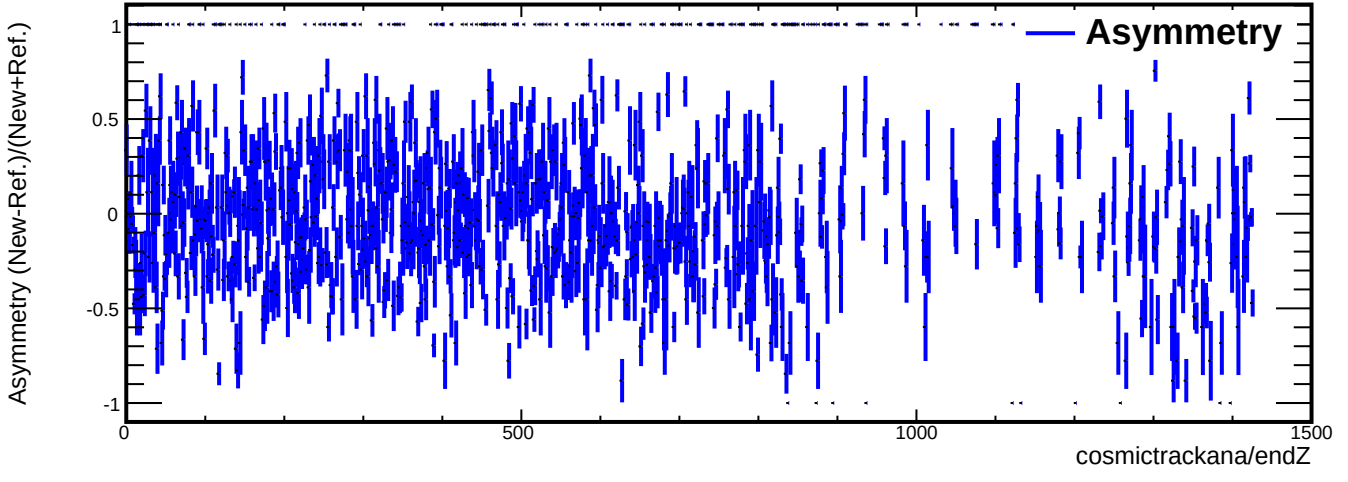

KS 0.000241484, chi2 8.62549e-271
2013-06-15
2013-06-16
1000
800
600
400
200
0
-200
-100
0
100
200
cosmictrackana/endX

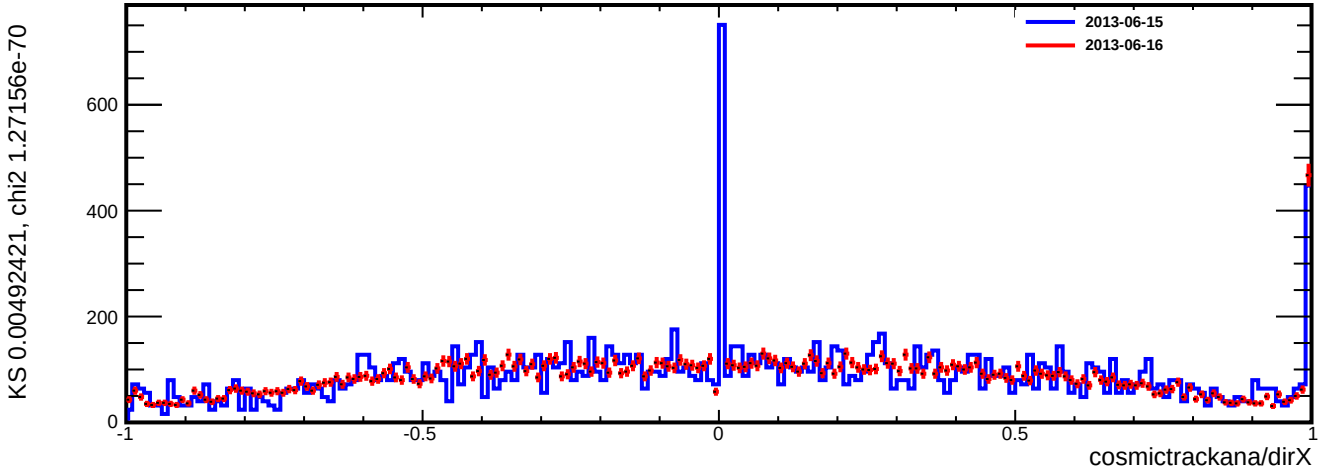

Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
1
0.5
0
-0.5
-200
-100
0
100
200
cosmictrackana/endX

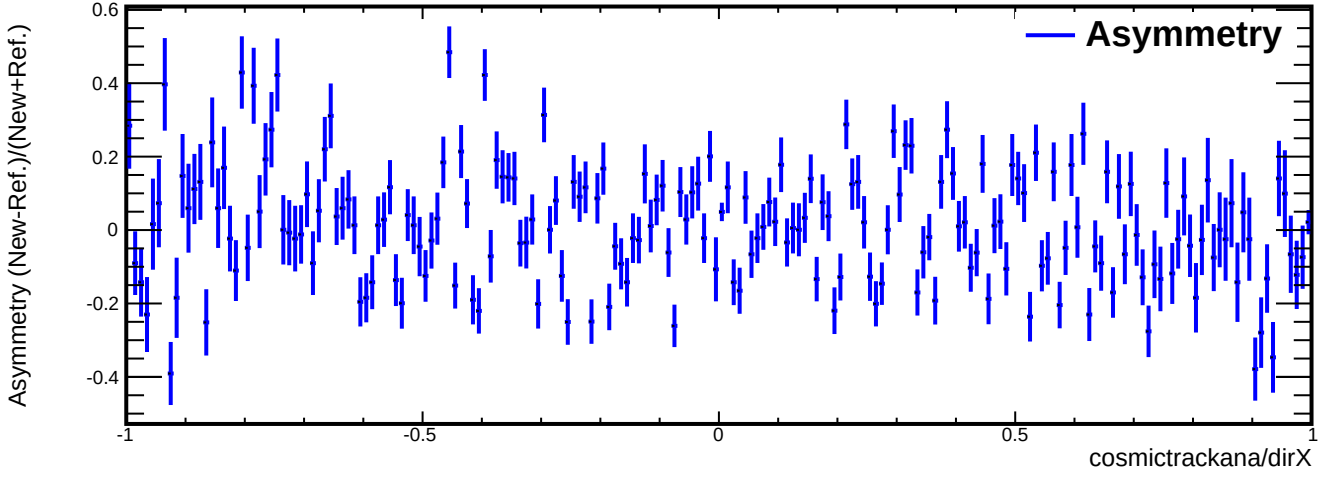

2013-06-15
2013-06-16
KS 0.0197423, chi2 0
2500
2000
1500
1000
500
0
-200
-100
0
100
200
cosmictrackana/endY

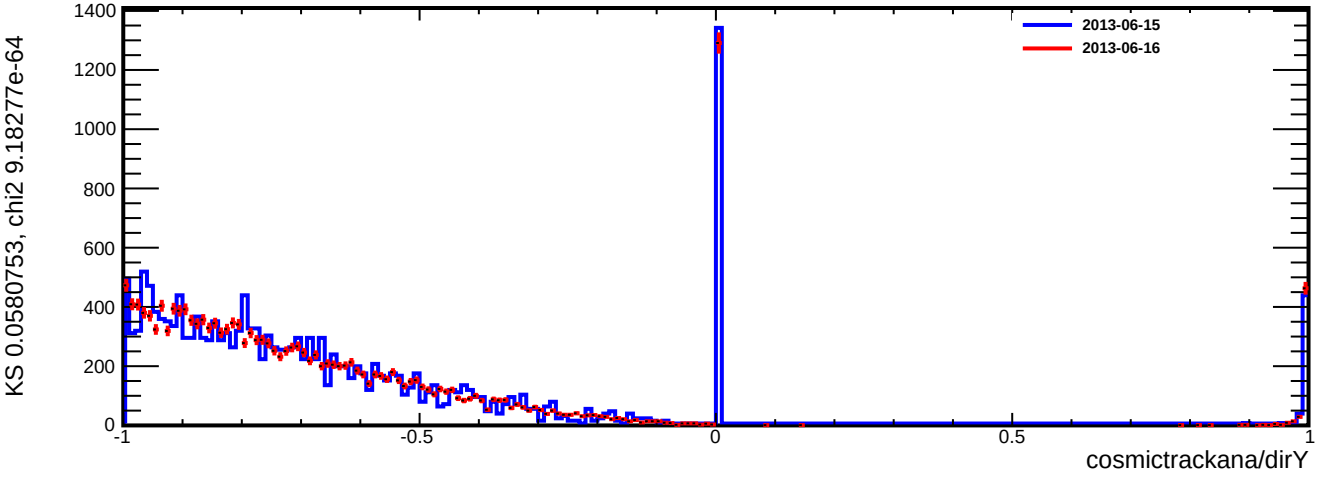

Asymmetry
Asymmetry (New-Ref.)/(New+Ref.)
1
0.5
0
-0.5
-200
-100
0
100
200
cosmictrackana/endY

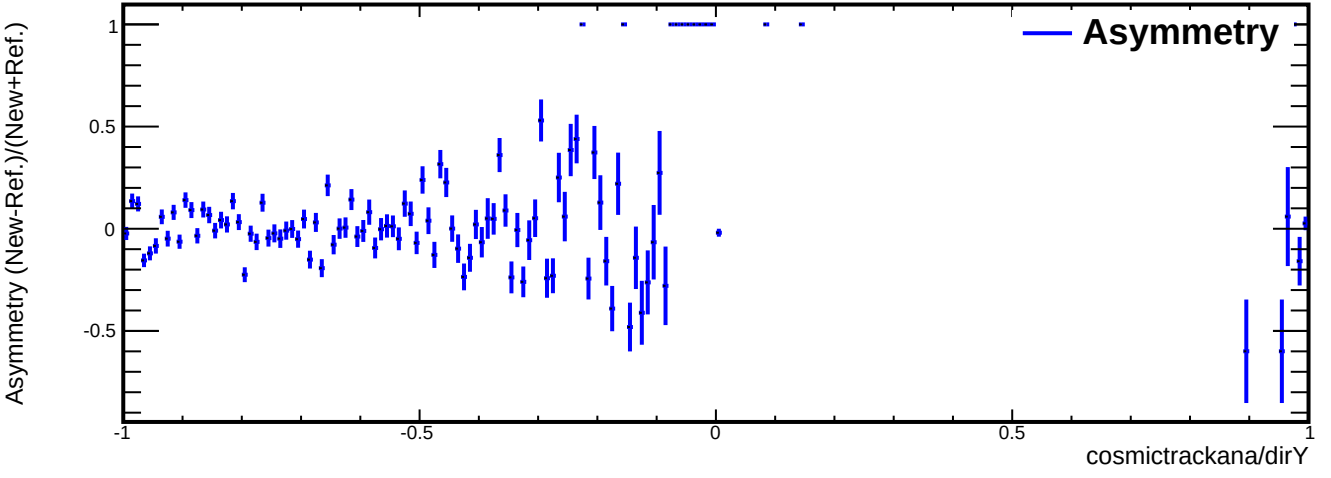

2013-06-15
2013-06-16
KS 0.000478597, chi2 0
300
200
100
0
0
500
1000
1500
cosmictrackana/endZ

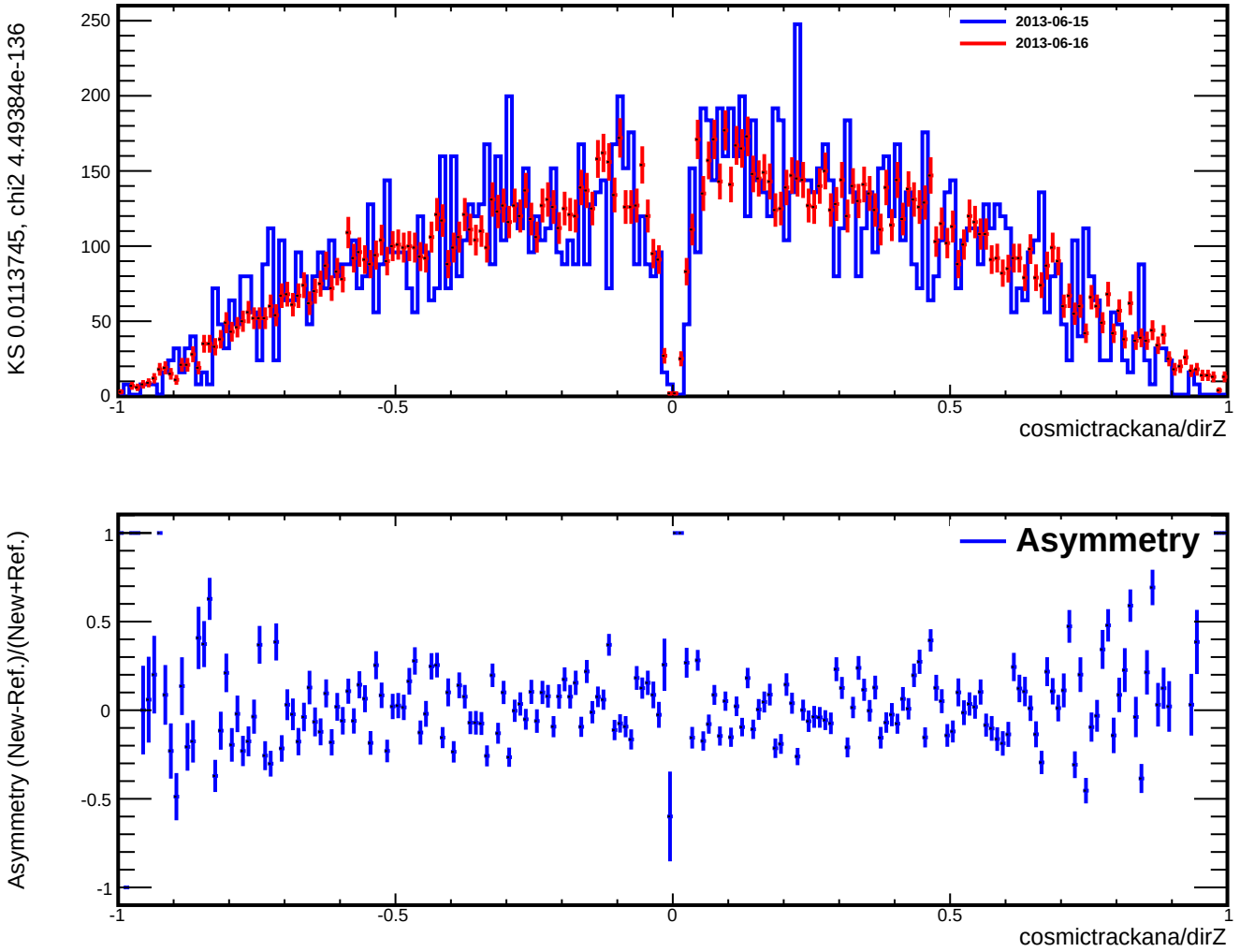

Asymmetry
Asymmetry (New-Ref.)/(New+Ref.)
1
0.5
0
-0.5
-1
0
500
1000
1500
cosmictrackana/endZ

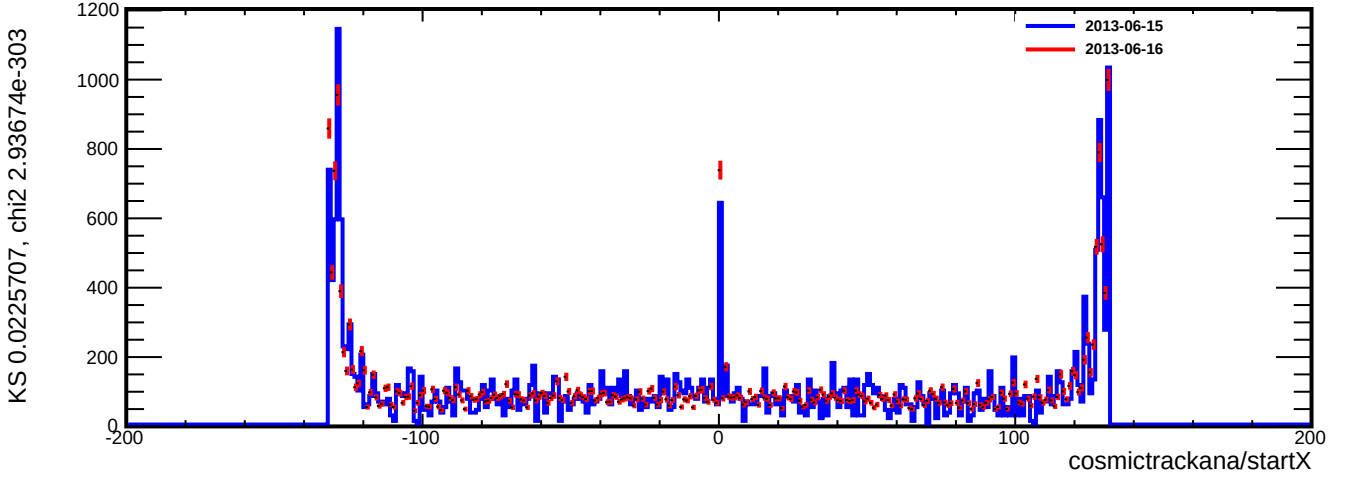

KS 0.00492421, chi2 1.27156e-70
2013-06-15
2013-06-16
600
400
200
0
-1
-0.5
0
0.5
1
cosmictrackana/dirX

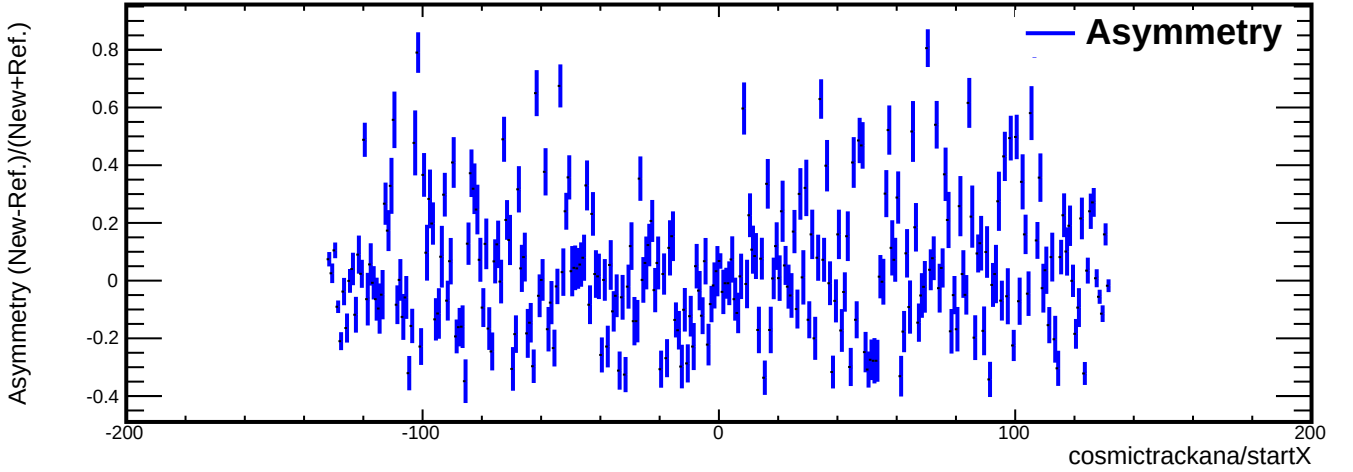

Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
0.6
0.4
0.2
0
-0.2
-0.4
-1
-0.5
0
0.5
1
cosmictrackana/dirX

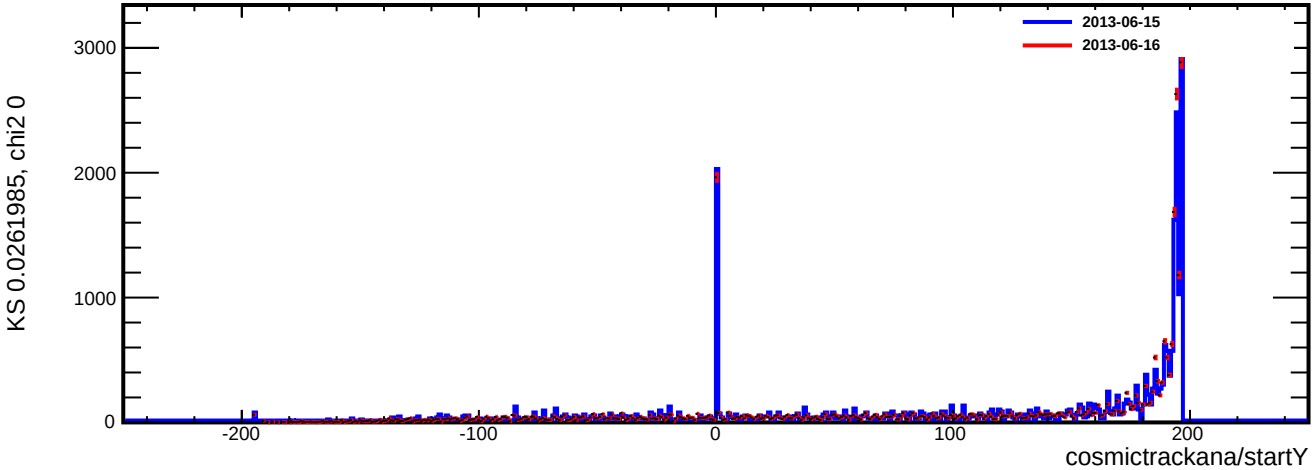

KS 0.0580753, chi2 9.18277e-64
2013-06-15
2013-06-16
cosmictrackana/dirY

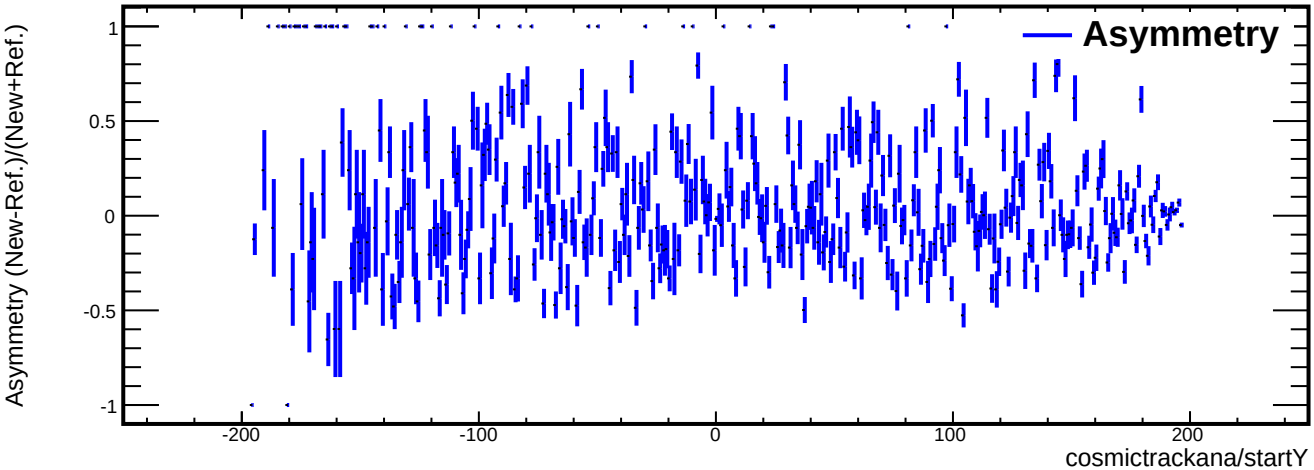

Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
cosmictrackana/dirY

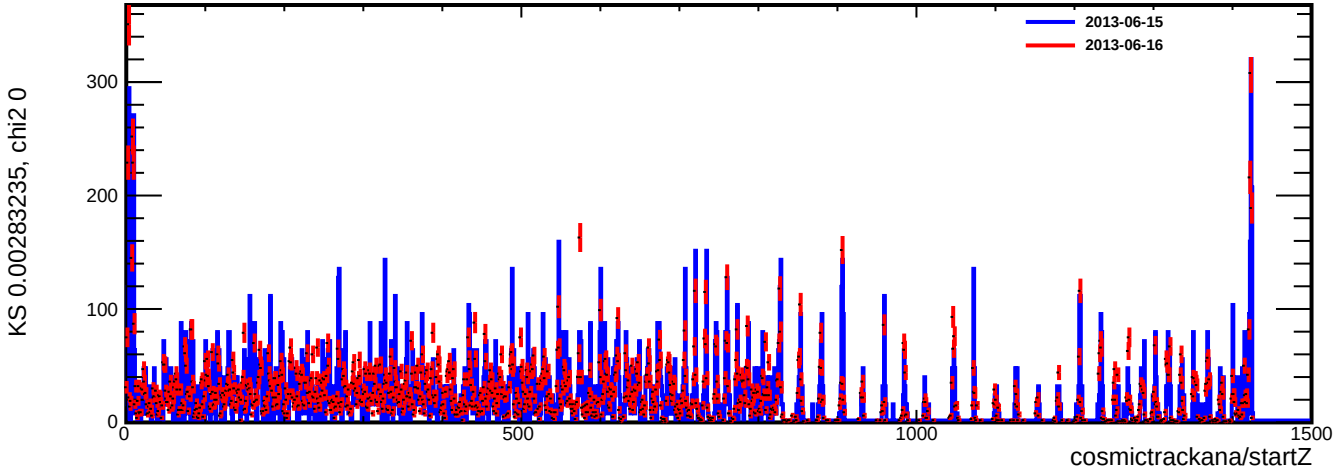

KS 0.0113745, chi2 4.49384e-136
2013-06-15
2013-06-16
cosmictrackana/dirZ
Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
cosmictrackana/dirZ

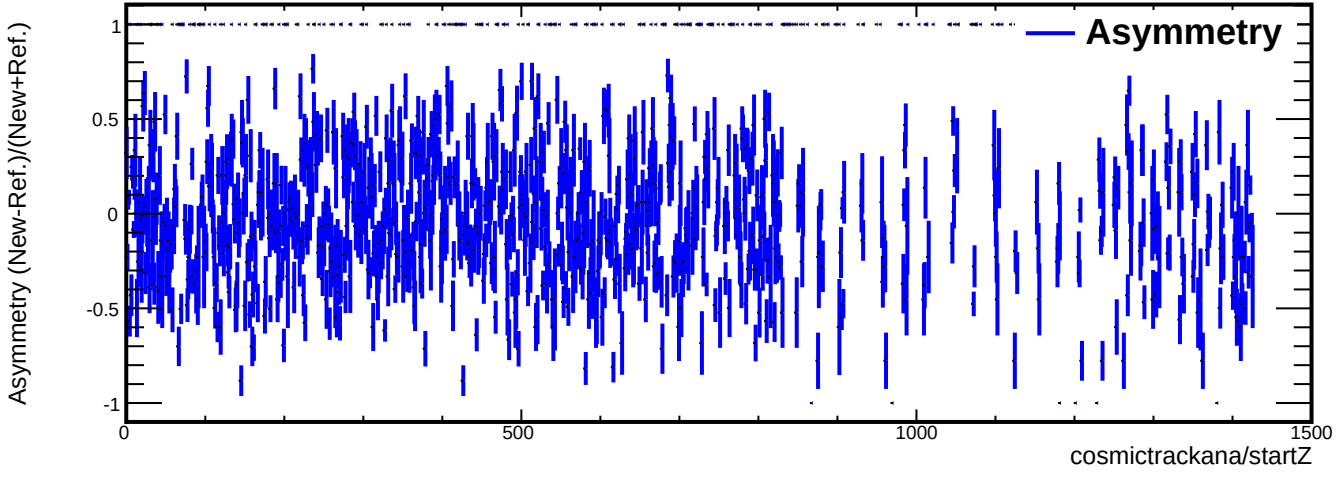

KS 0.0225707, chi2 2.93674e-303
2013-06-15
2013-06-16
cosmictrackana/startX

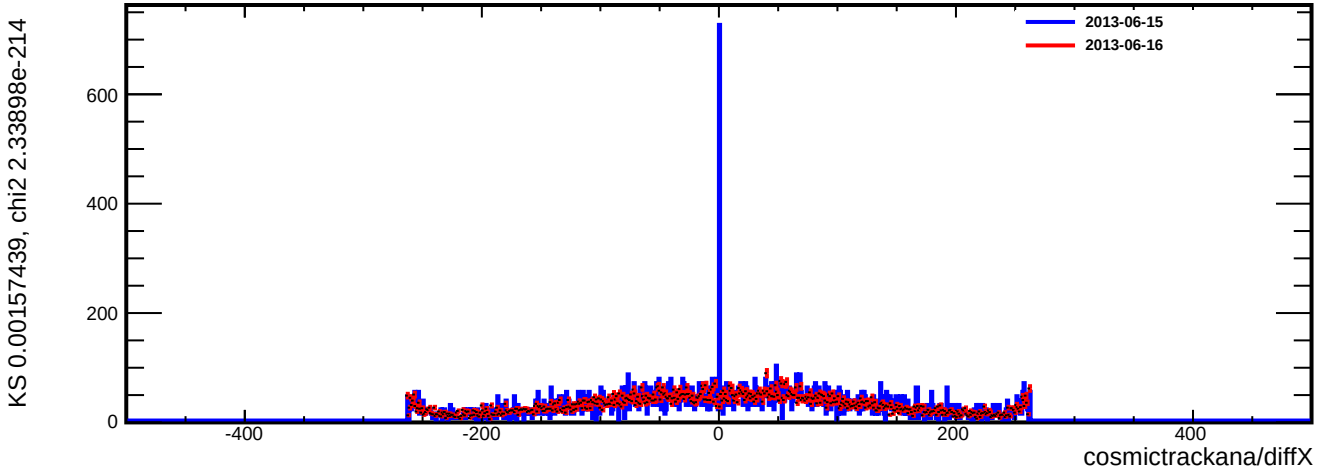

Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
cosmictrackana/startX

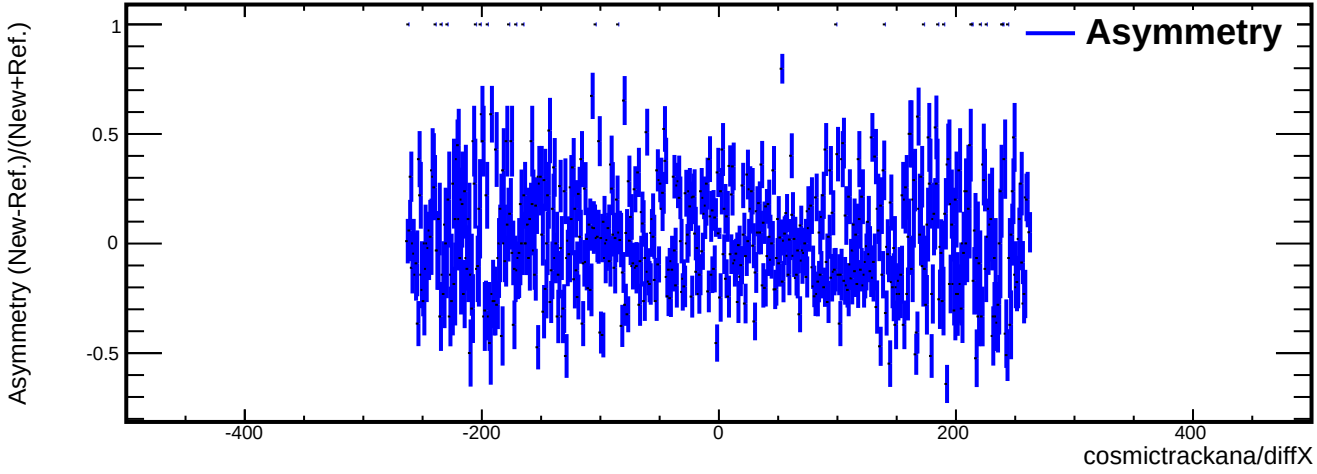

2013-06-15
2013-06-16
KS 0.0261985, chi2 0
3000
2000
1000
0
-200
-100
0
100
200
cosmictrackana/startY

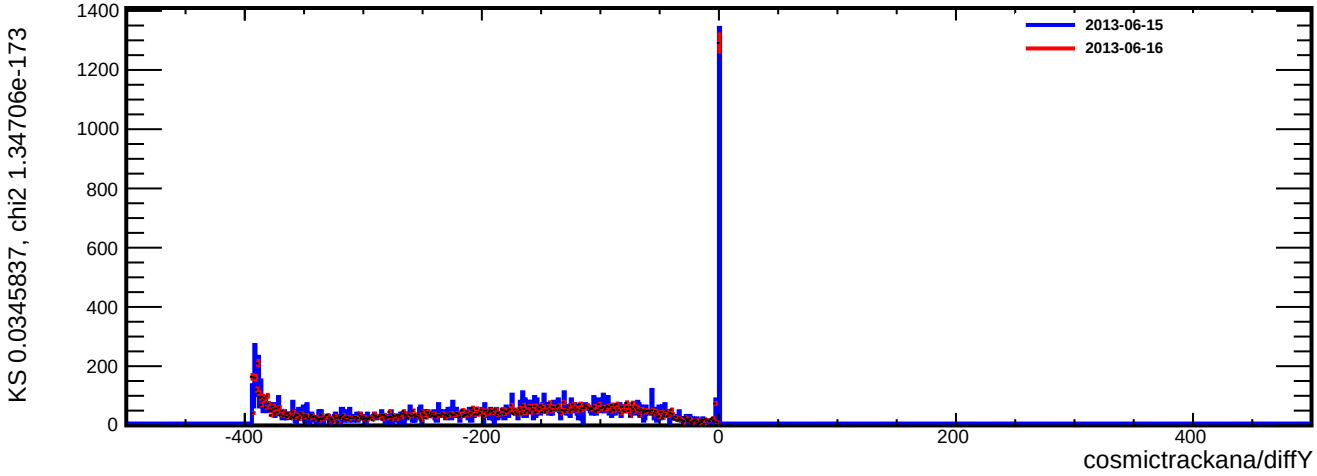

Asymmetry
Asymmetry (New-Ref.)/(New+Ref.)
1
0.5
0
-0.5
-1
-200
-100
0
100
200
cosmictrackana/startY

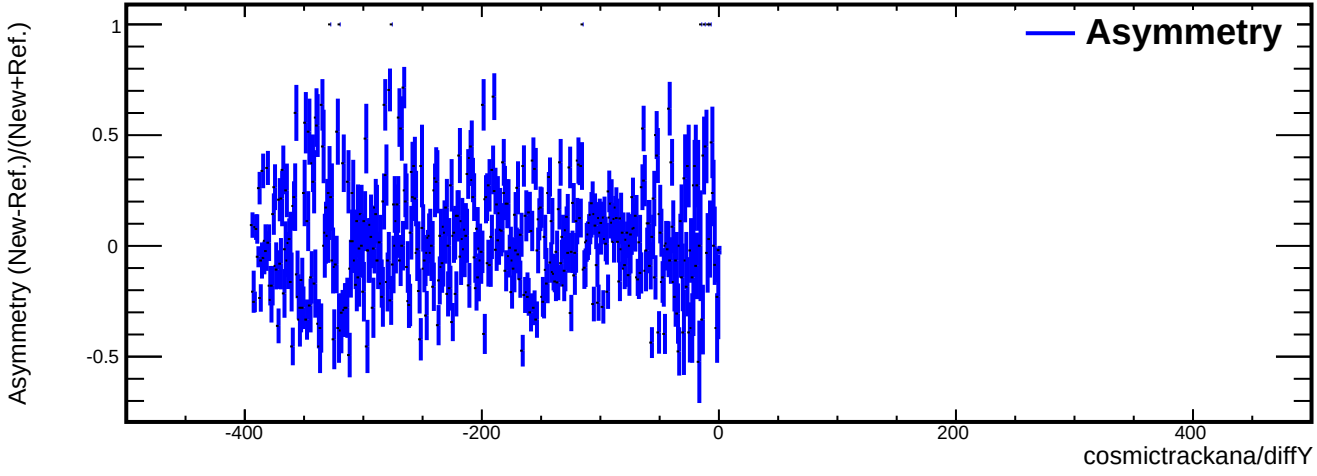

2013-06-15
2013-06-16
KS 0.00283235, chi2 0
300
200
100
0
0
500
1000
1500
cosmictrackana/startZ

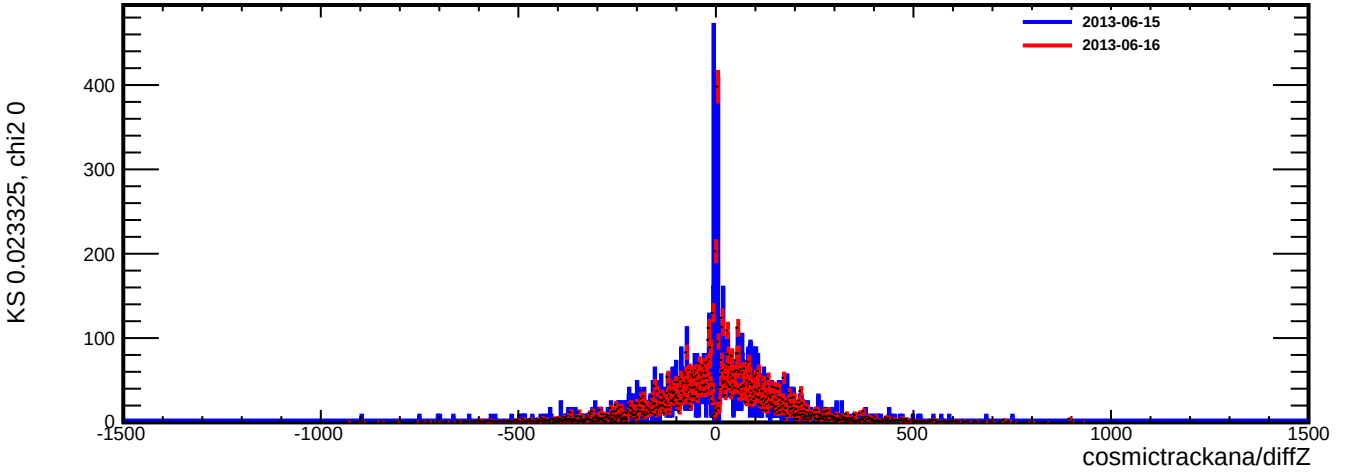

Asymmetry
Asymmetry (New-Ref.)/(New+Ref.)
1
0.5
0
-0.5
-1
0
500
1000
1500
cosmictrackana/startZ

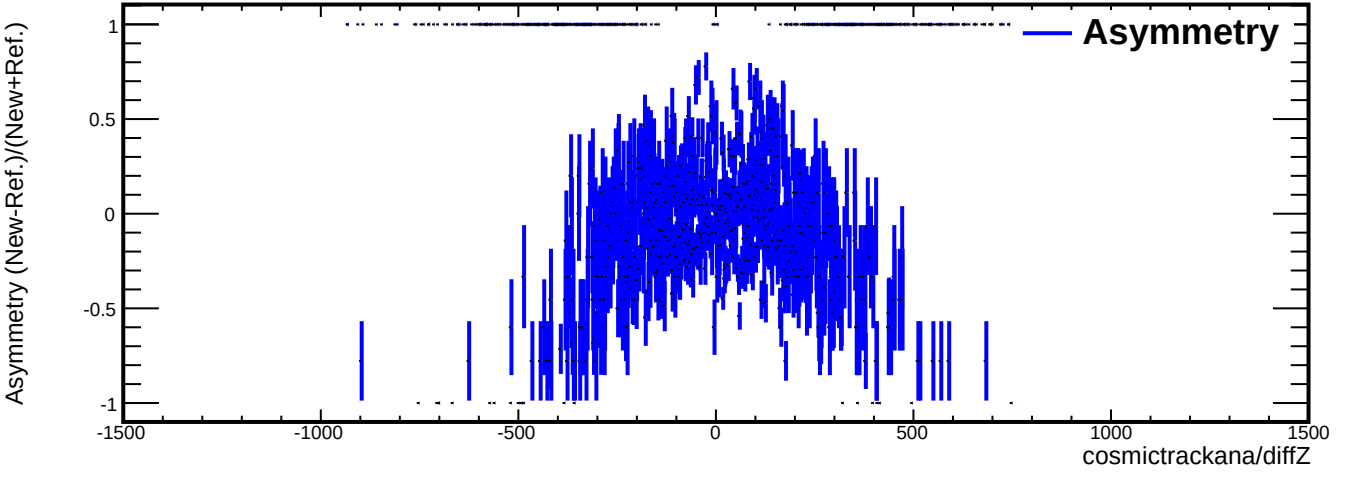

KS 0.00157439, chi2 2.33898e-214
2013-06-15
2013-06-16
600
400
200
0
-400
-200
0
200
400
cosmictrackana/diffX

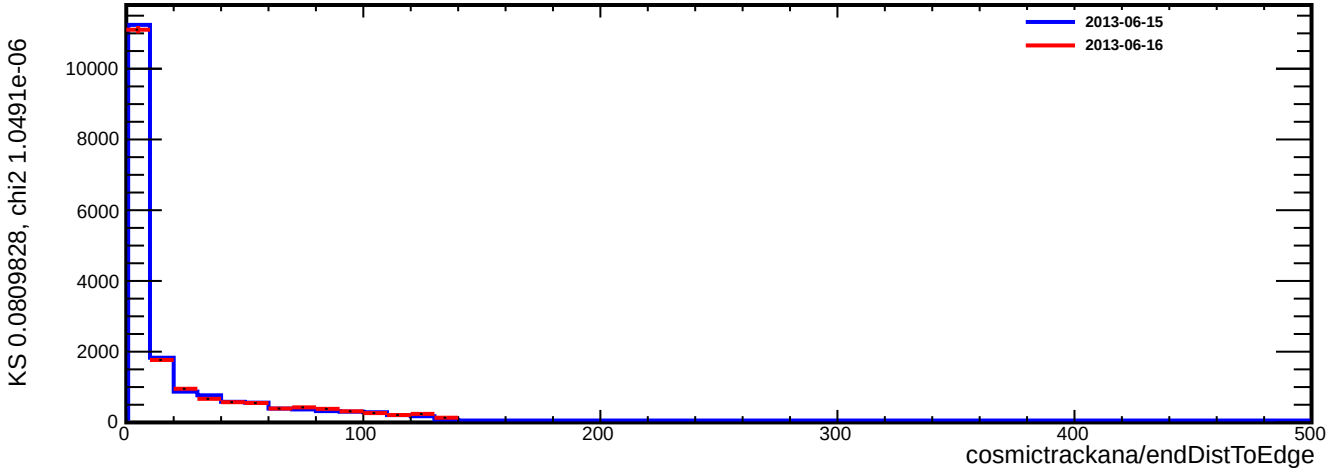

Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
1
0.5
0
-0.5
-400
-200
0
200
400
cosmictrackana/diffX

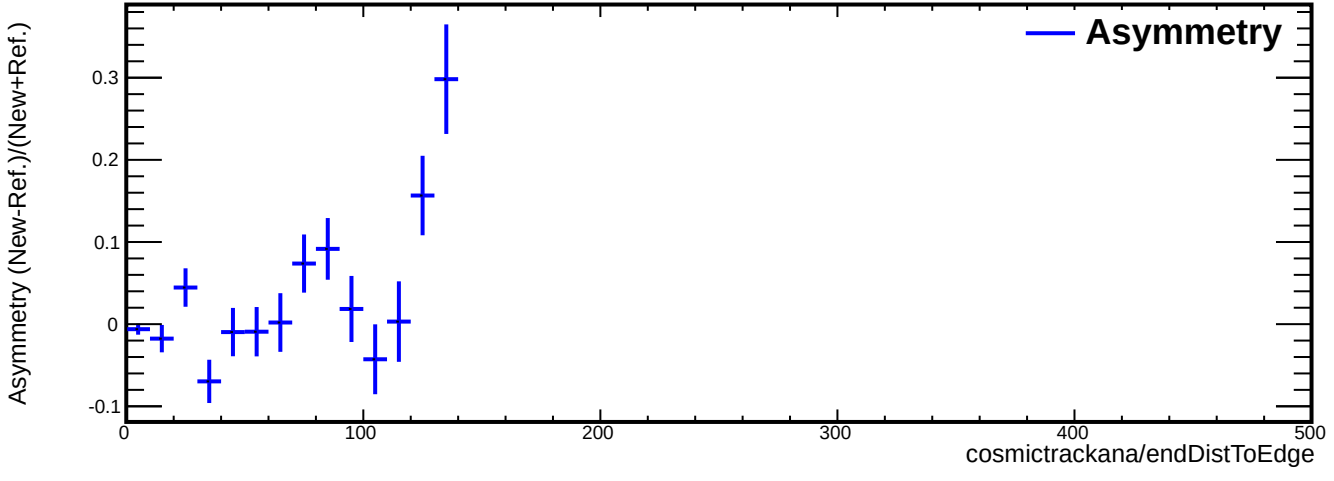

KS 0.0345837, chi2 1.34706e-173
1400
1200
1000
800
600
400
200
0
-400
-200
0
200
400
cosmictrackana/diffY
2013-06-15
2013-06-16

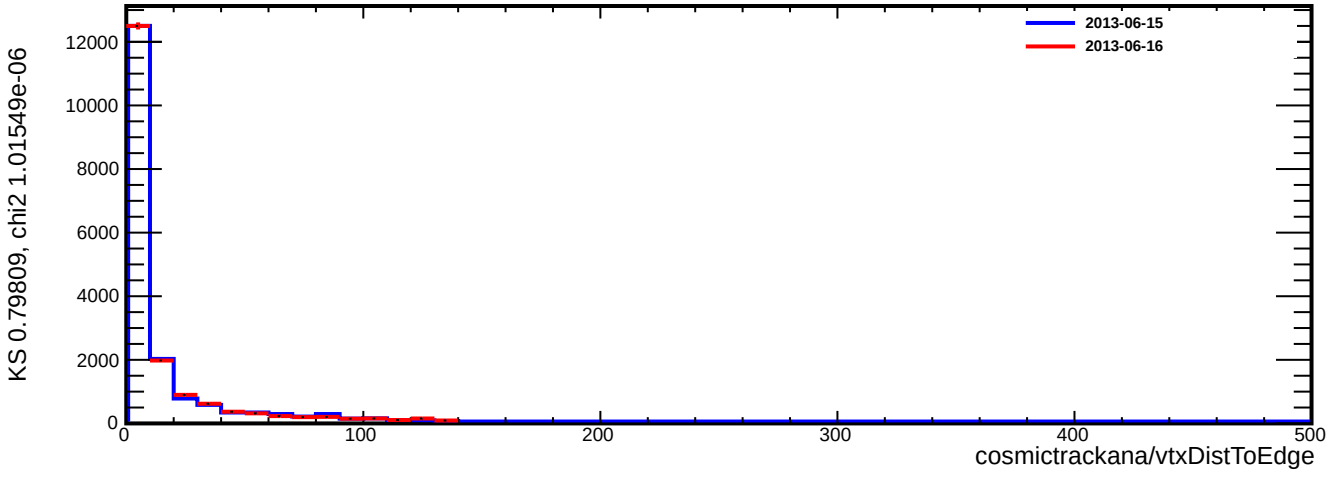

Asymmetry (New-Ref.)/(New+Ref.)
1
0.5
0
-0.5
-400
-200
0
200
400
cosmictrackana/diffY
Asymmetry

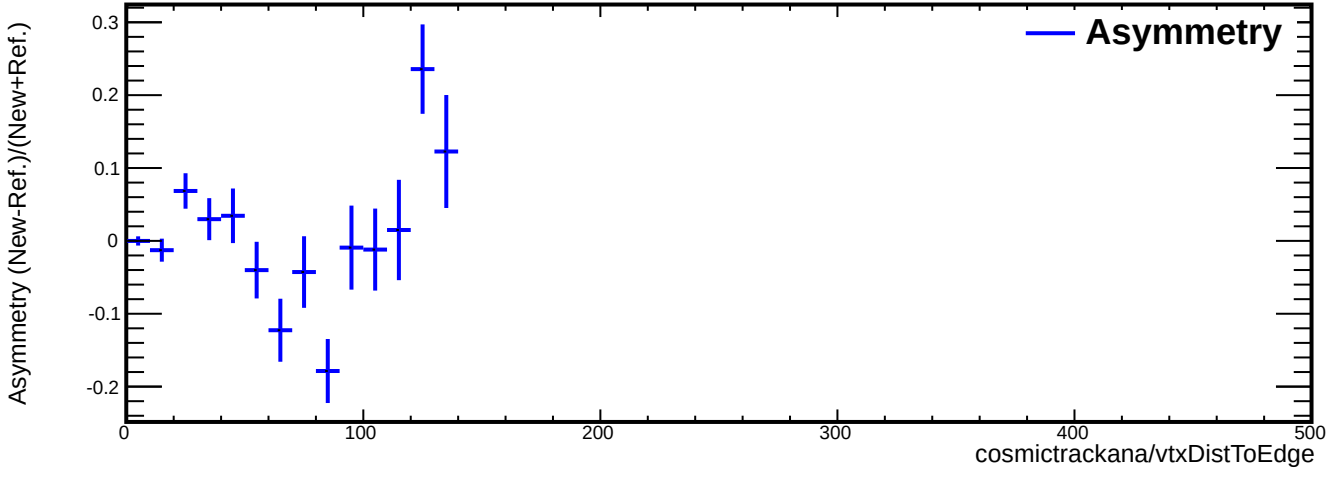

2013-06-15
2013-06-16
KS 0.023325, chi2 0
400
300
200
100
0
-1500
-1000
-500
0
500
1000
1500
cosmictrackana/diffZ

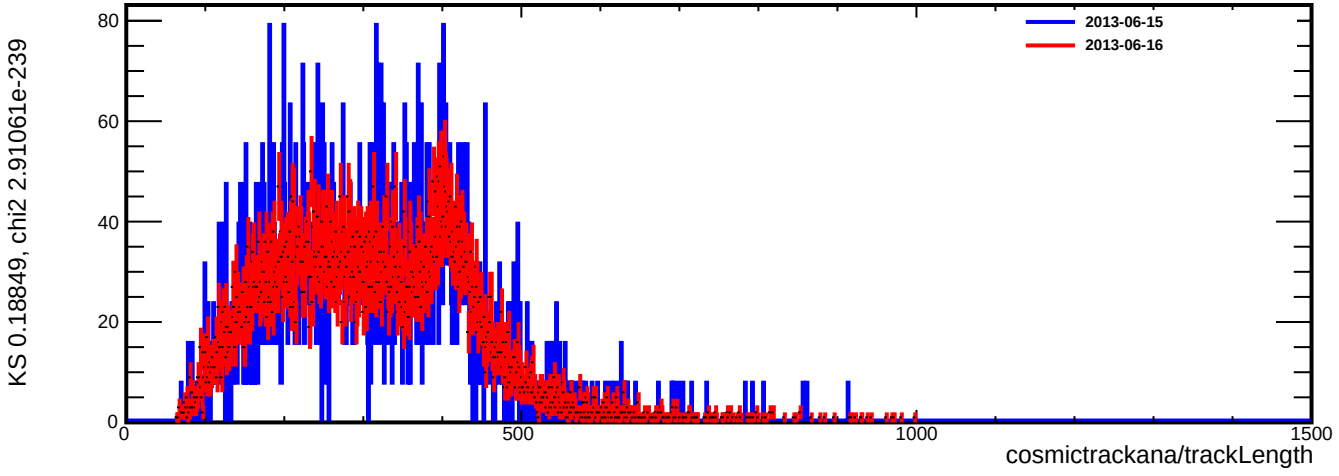

Asymmetry
Asymmetry (New-Ref.)/(New+Ref.)
1
0.5
0
-0.5
-1
-1500
-1000
-500
0
500
1000
1500
cosmictrackana/diffZ

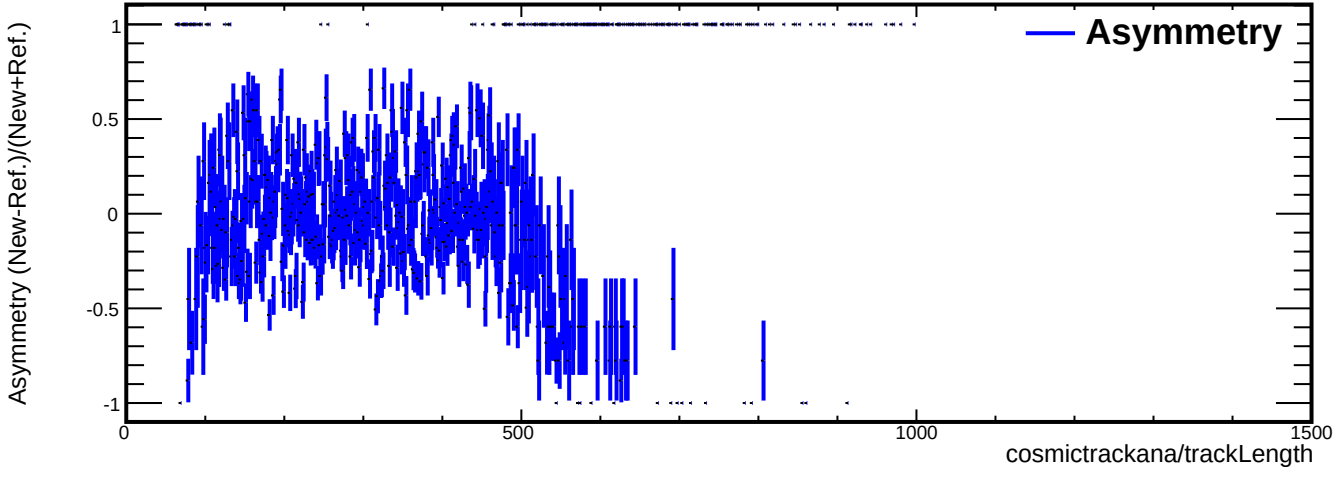

KS 0.0809828, chi2 1.0491e-06
2013-06-15
2013-06-16
10000
8000
6000
4000
2000
0
0
100
200
300
400
500
cosmictrackana/endDistToEdge

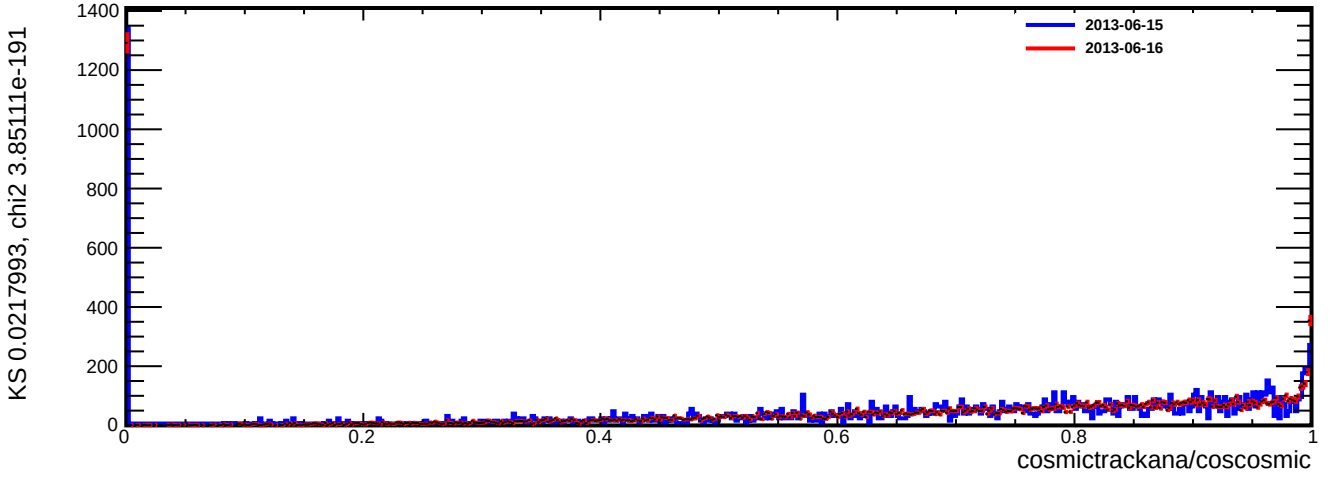

Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
0.3
0.2
0.1
0
-0.1
0
100
200
300
400
500
cosmictrackana/endDistToEdge

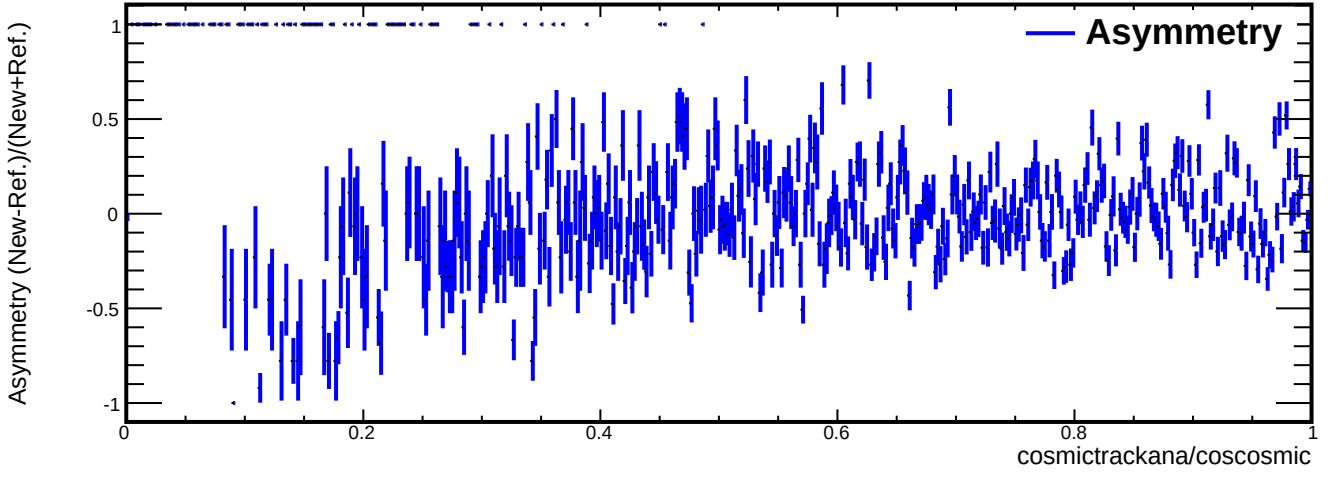

KS 0.79809, chi2 1.01549e-06
2013-06-15
2013-06-16
12000
10000
8000
6000
4000
2000
0
0
100
200
300
400
500
cosmictrackana/vtxDistToEdge

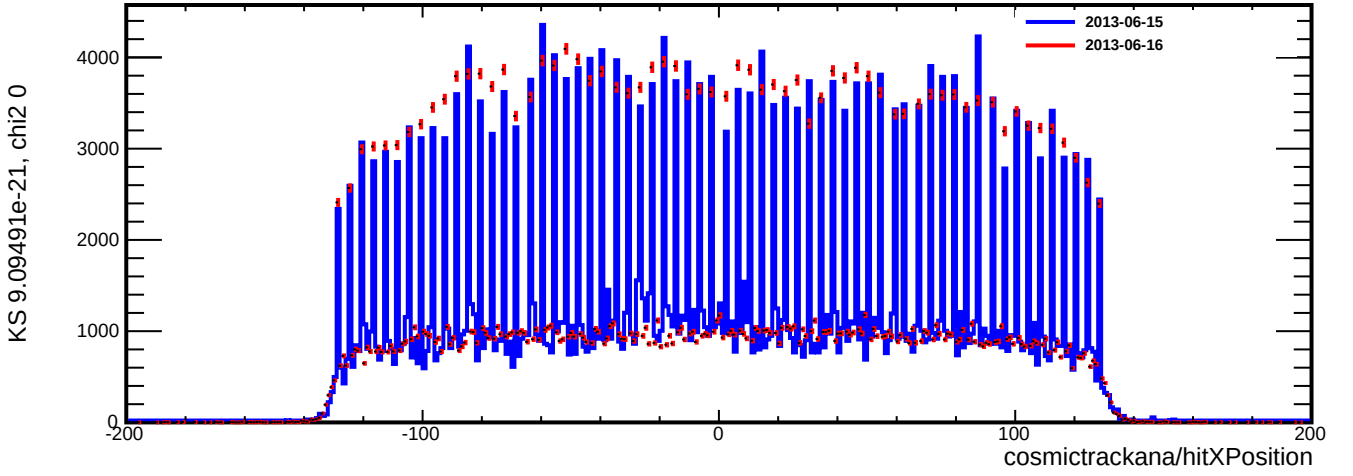

Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
0.3
0.2
0.1
0
-0.1
-0.2
0
100
200
300
400
500
cosmictrackana/vtxDistToEdge

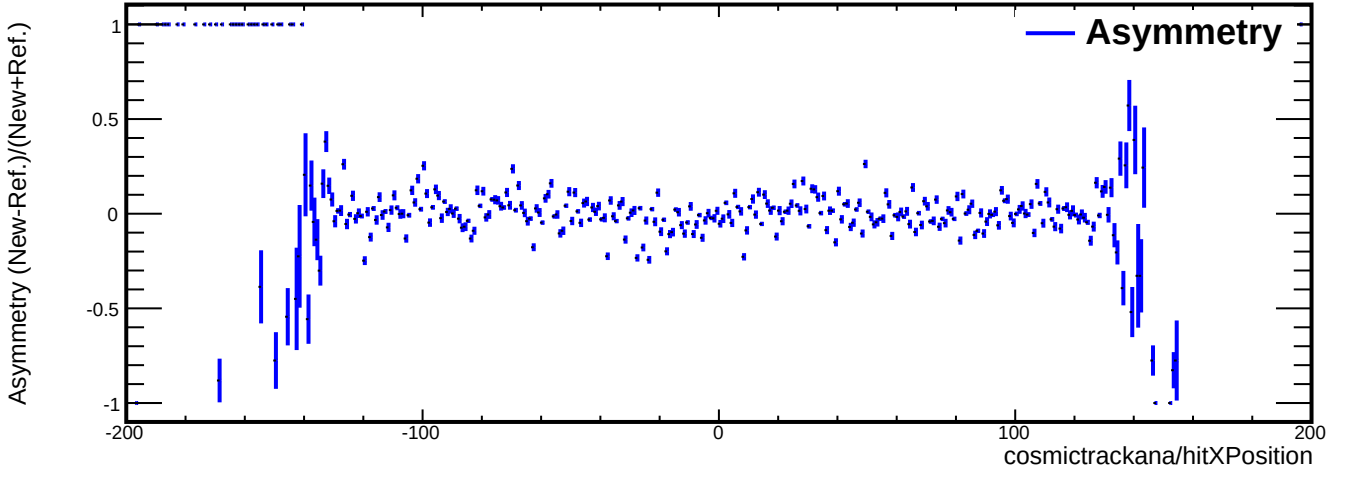

KS 0.18849, chi2 2.91061e-239
2013-06-15
2013-06-16
80
60
40
20
0
0
500
1000
1500
cosmictrackana/trackLength

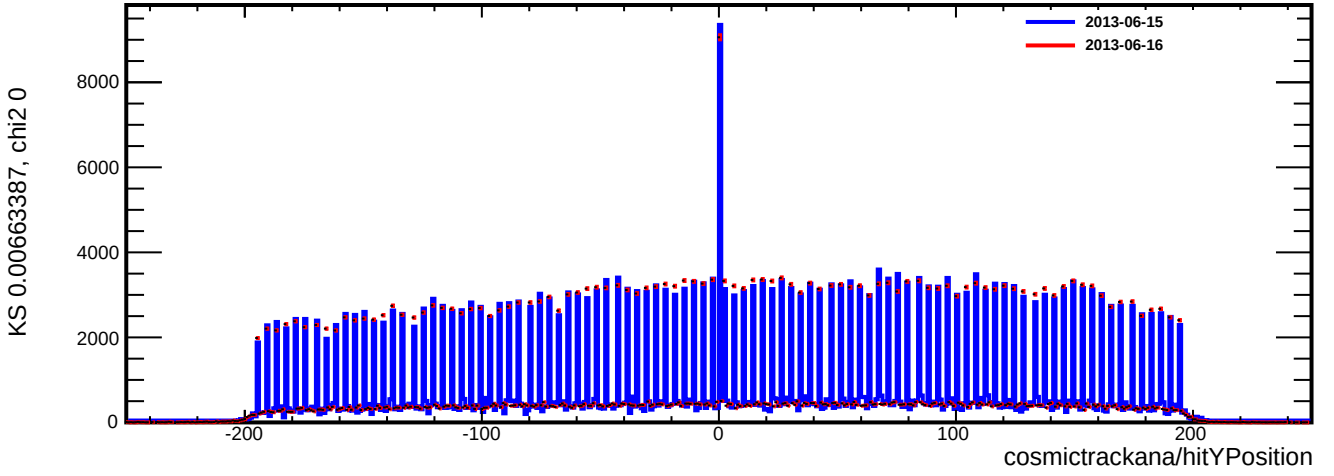

Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
1
0.5
0
-0.5
-1
0
500
1000
1500
cosmictrackana/trackLength

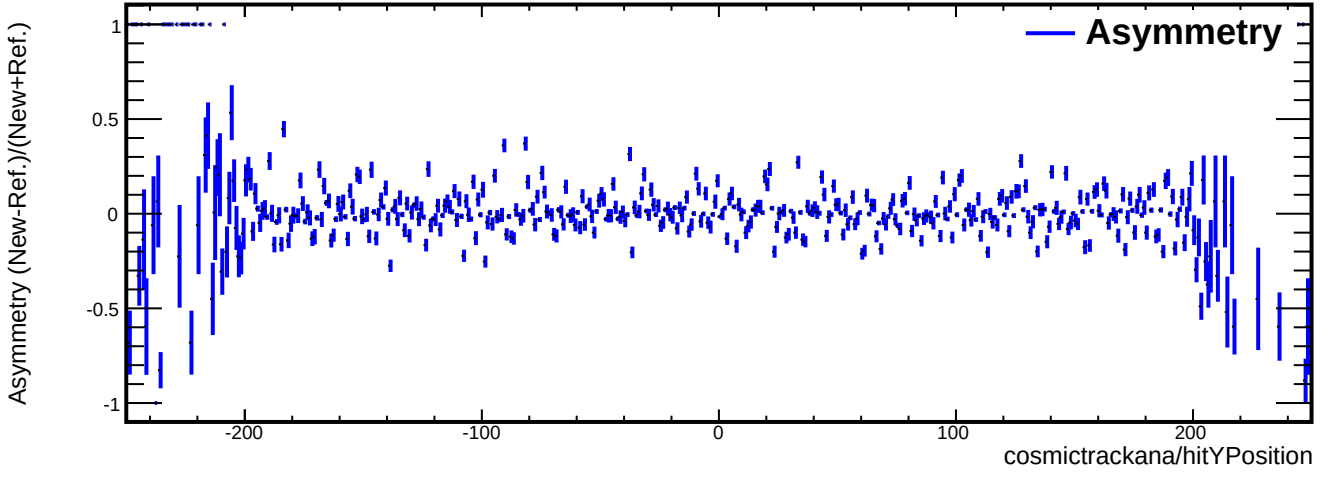

KS 0.0217993, chi2 3.85111e-191
2013-06-15
2013-06-16
cosmictrackana/coscosmic

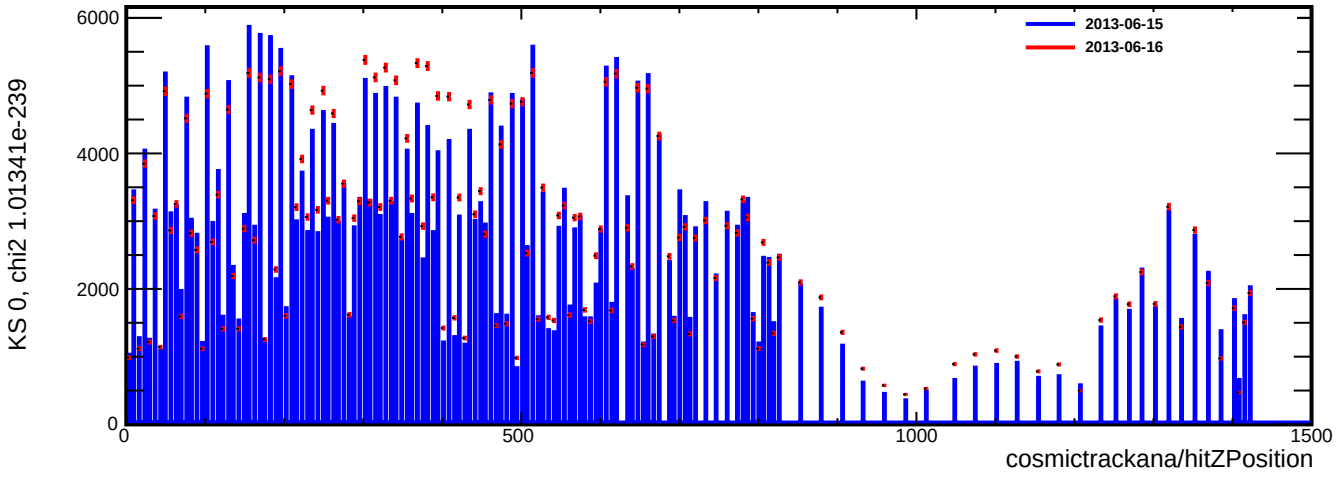

Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
cosmictrackana/coscosmic

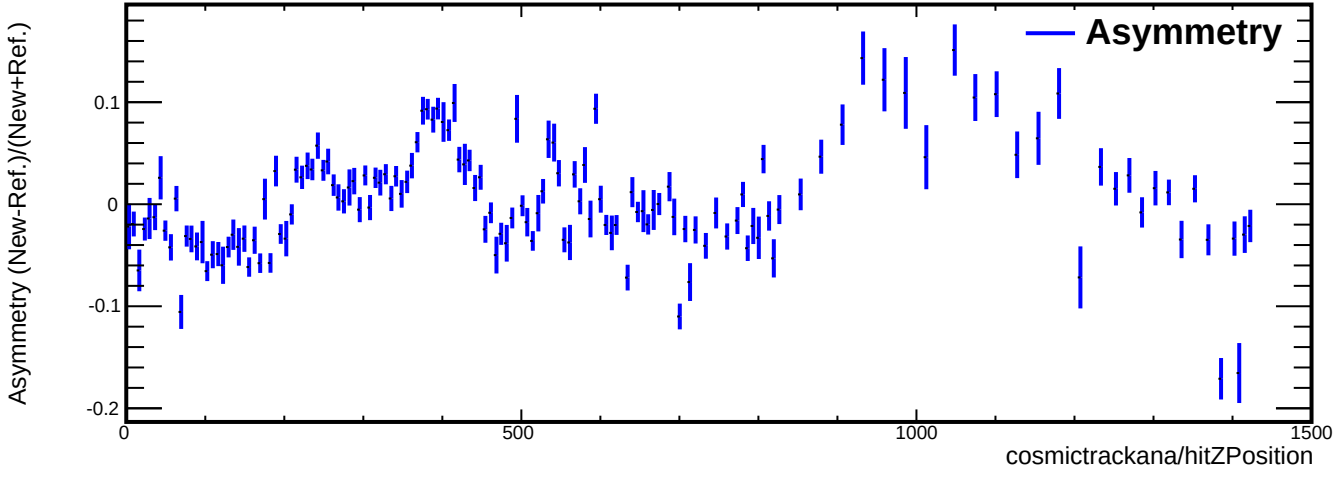

2013-06-15
2013-06-16
KS 9.09491e-21, chi2 0
4000
3000
2000
1000
0
-200
-100
0
100
200
cosmictrackana/hitXPosition

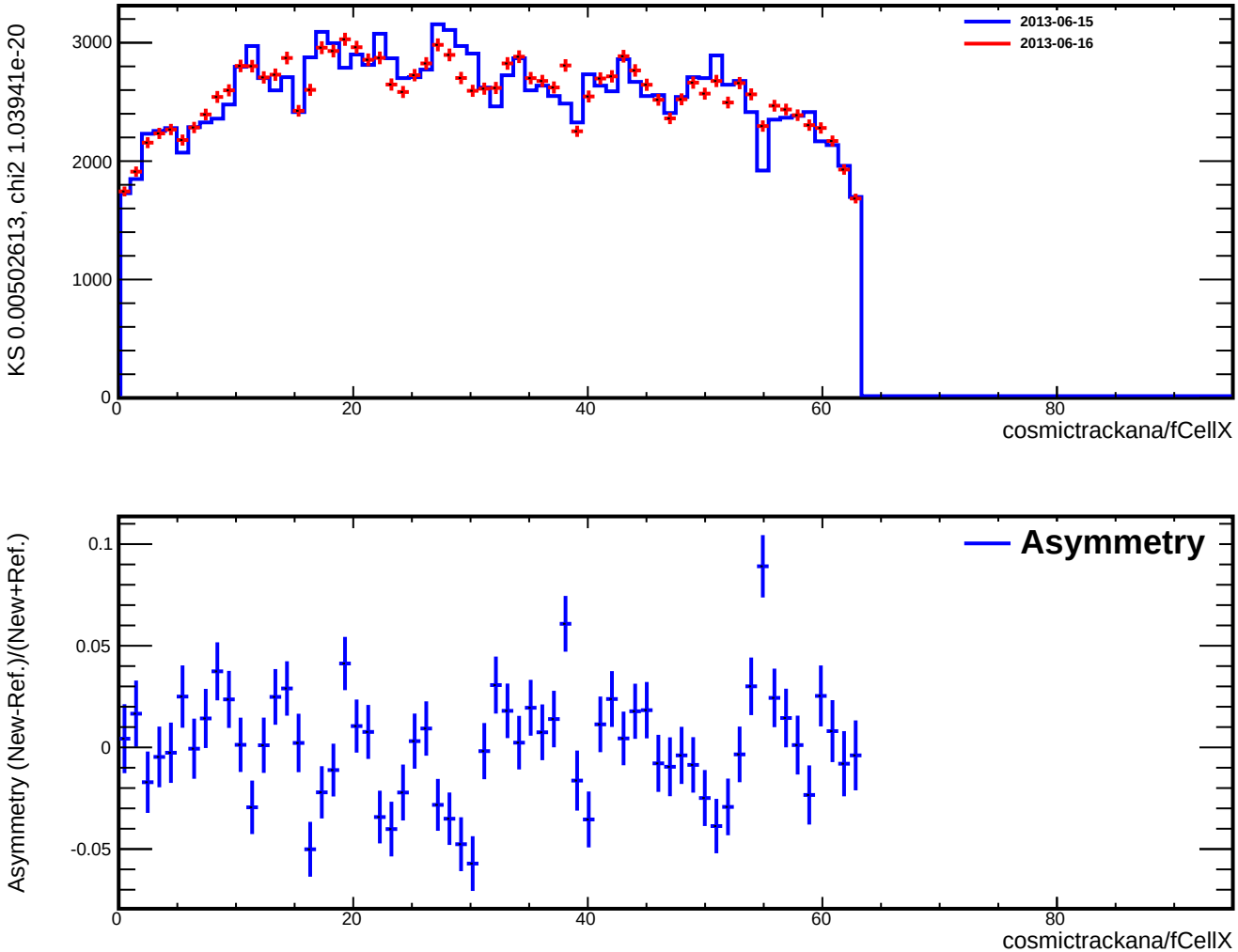

Asymmetry
Asymmetry (New-Ref.)/(New+Ref.)
1
0.5
0
-0.5
-1
-200
-100
0
100
200
cosmictrackana/hitXPosition

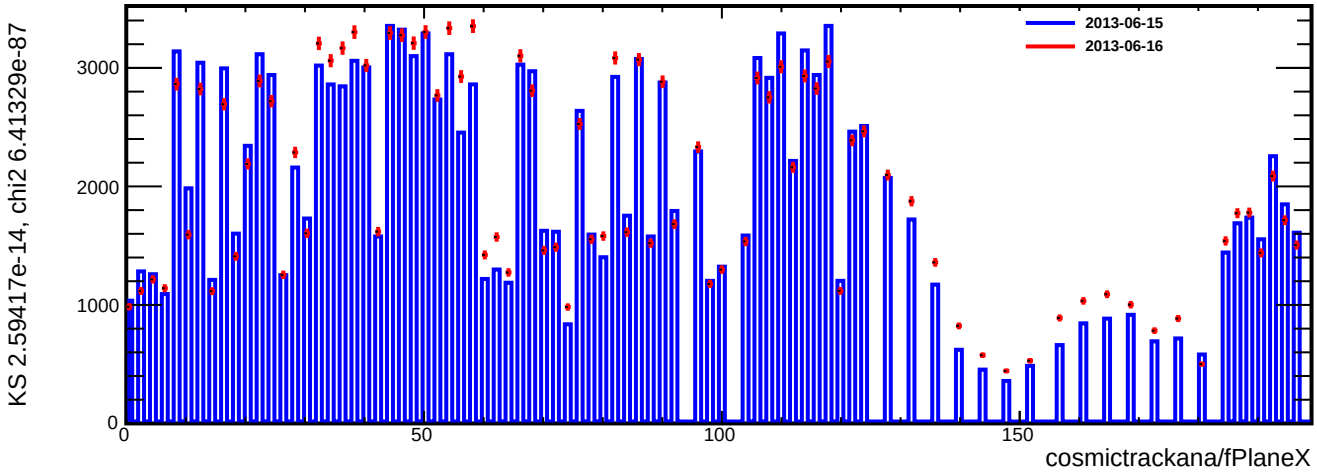

KS 0.00663387, chi2 0
2013-06-15
2013-06-16
8000
6000
4000
2000
0
-200
-100
0
100
200
cosmictrackana/hitYPosition

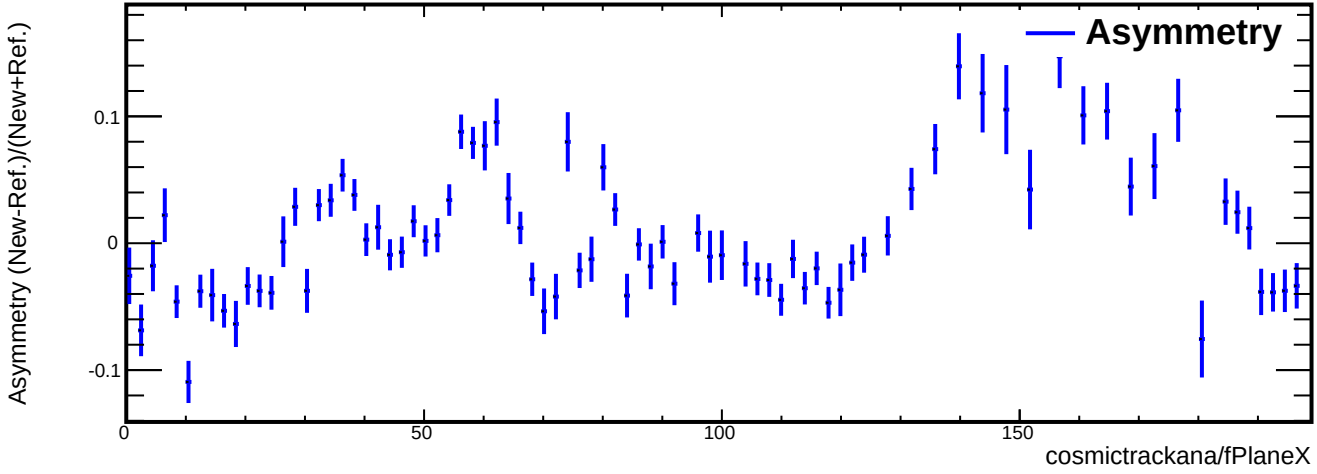

Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
1
0.5
0
-0.5
-1
-200
-100
0
100
200
cosmictrackana/hitYPosition

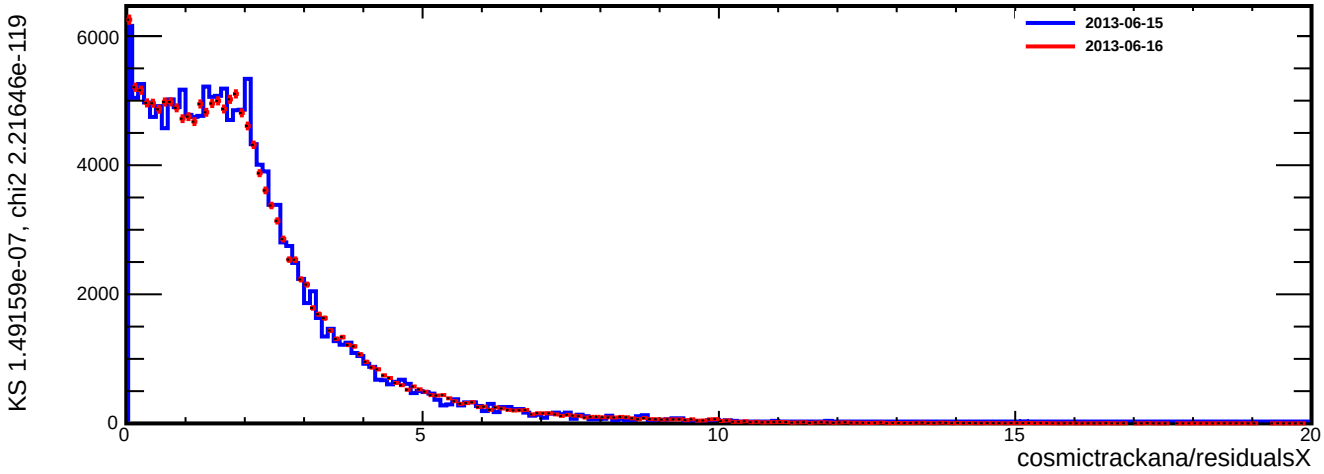

KS 0, chi2 1.01341e-239
6000
4000
2000
0
0
500
1000
1500
cosmictrackana/hitZPosition
2013-06-15
2013-06-16

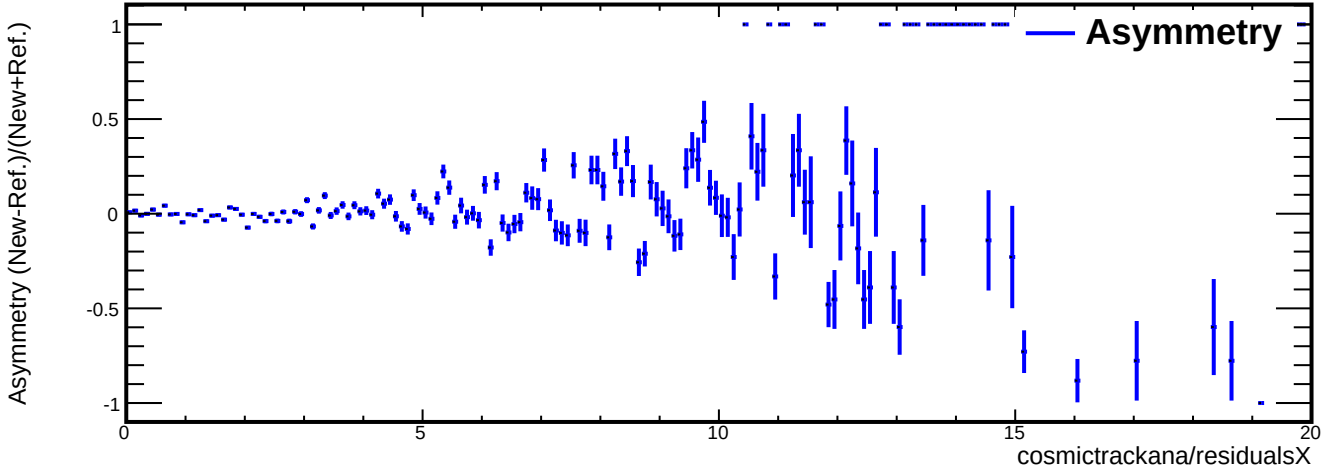

Asymmetry (New-Ref.)/(New+Ref.)
0.1
0
-0.1
-0.2
0
500
1000
1500
cosmictrackana/hitZPosition
Asymmetry

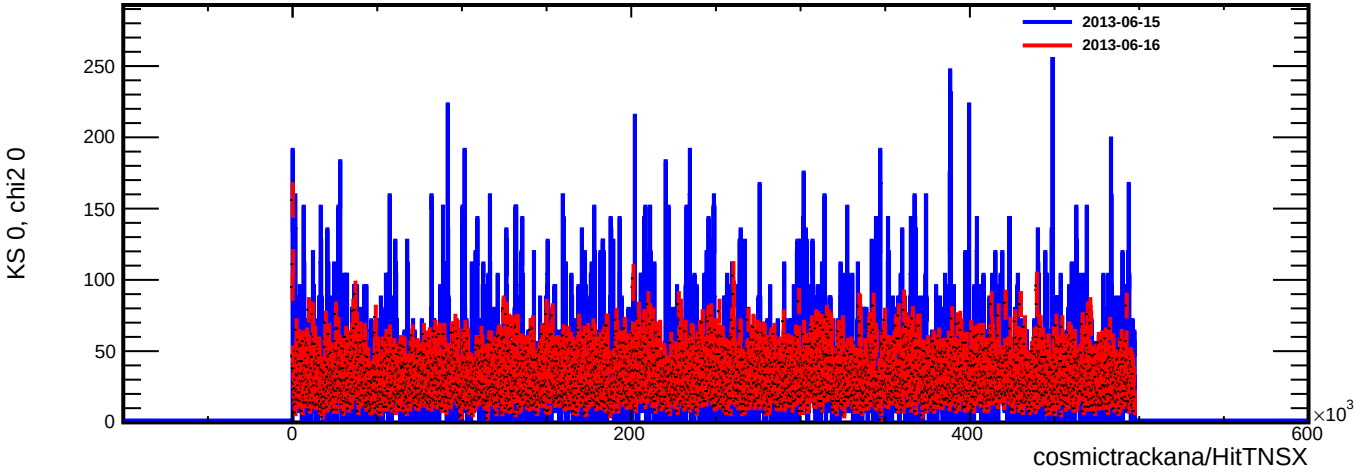

KS 0.00502613, chi2 1.03941e-20
2013-06-15
2013-06-16
cosmictrackana/fCellX
Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
cosmictrackana/fCellX

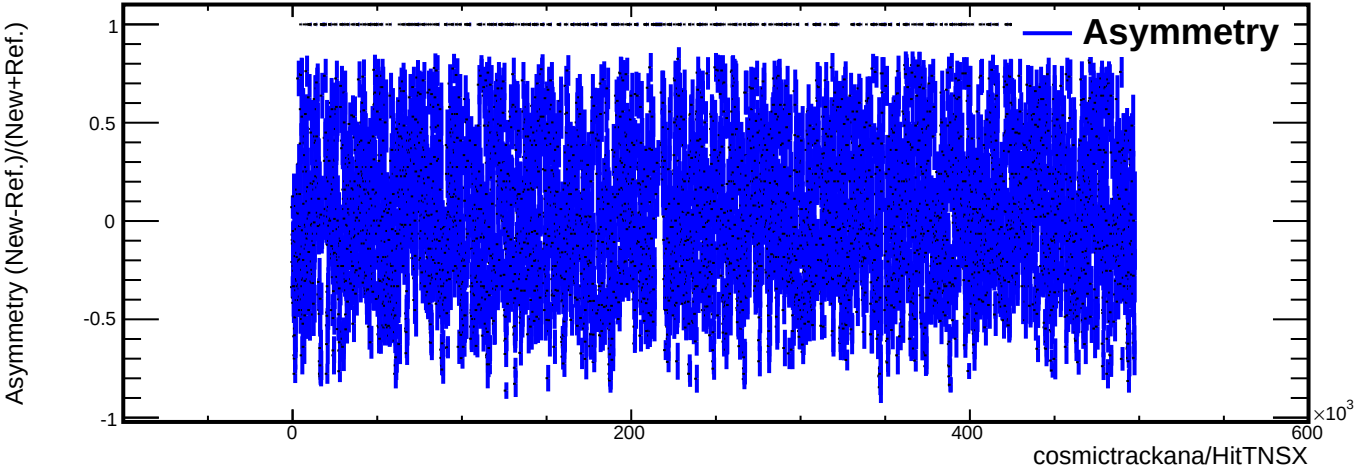

KS 2.59417e-14, chi2 6.41329e-87
2013-06-15
2013-06-16
0
1000
2000
3000
0
50
100
150
cosmictrackana/fPlaneX

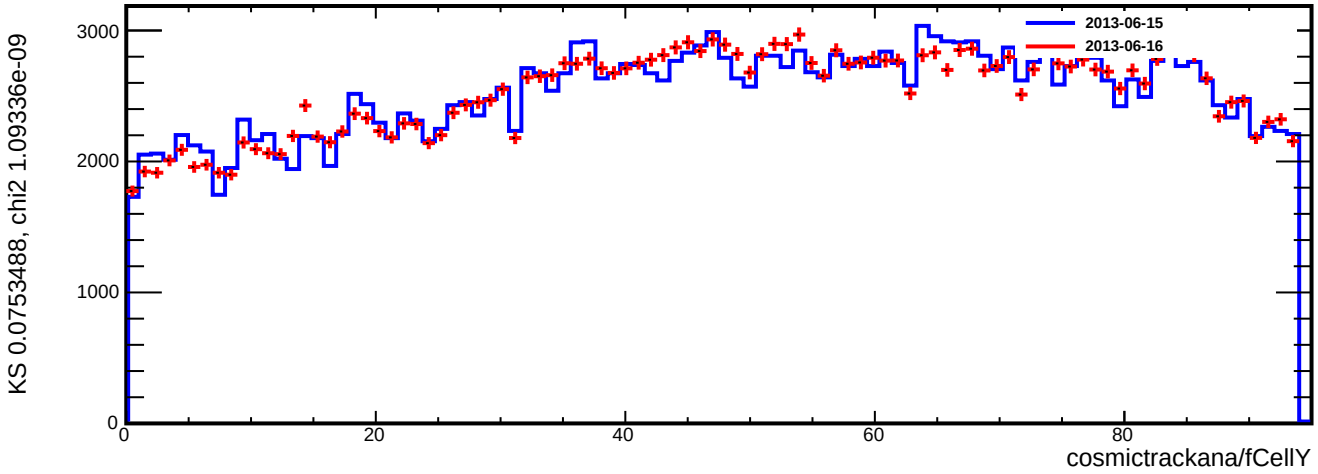

Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
-0.1
0
0.1
0
50
100
150
cosmictrackana/fPlaneX

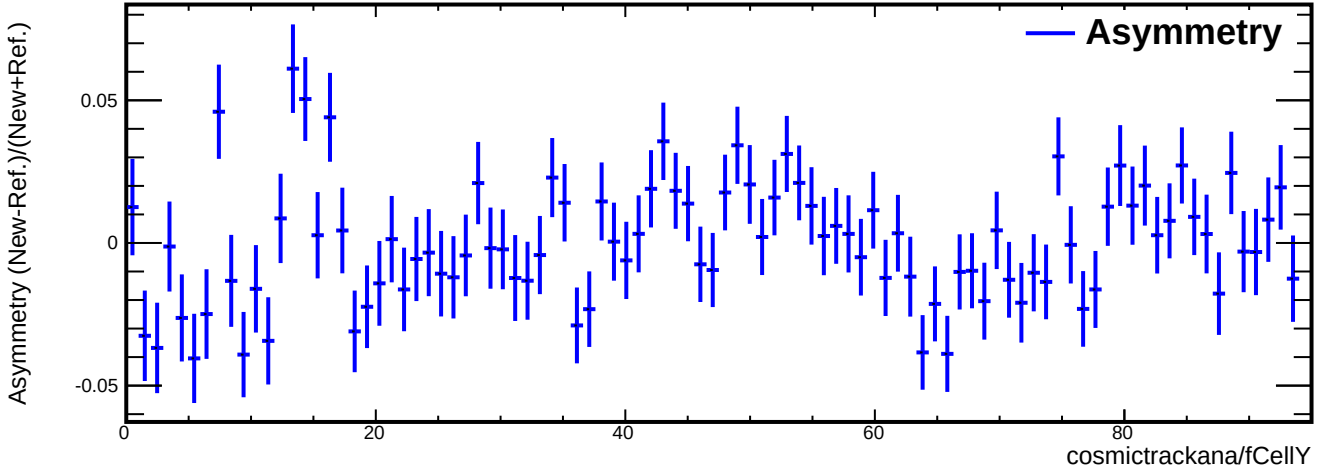

KS 1.49159e-07, chi2 2.21646e-119
2013-06-15
2013-06-16
6000
4000
2000
0
0
5
10
15
20
cosmictrackana/residualsX

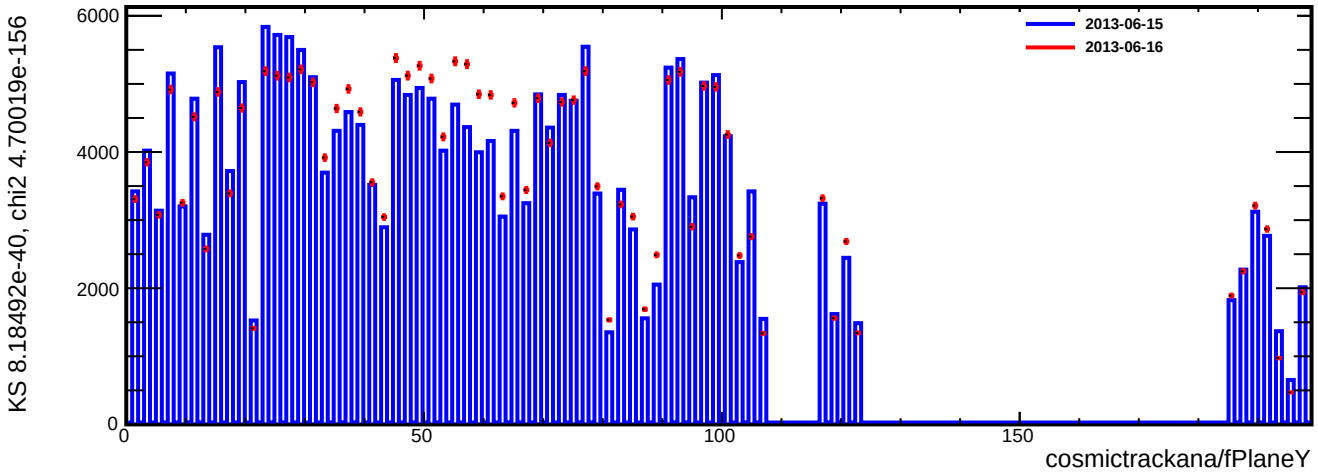

Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
1
0.5
0
-0.5
-1
0
5
10
15
20
cosmictrackana/residualsX

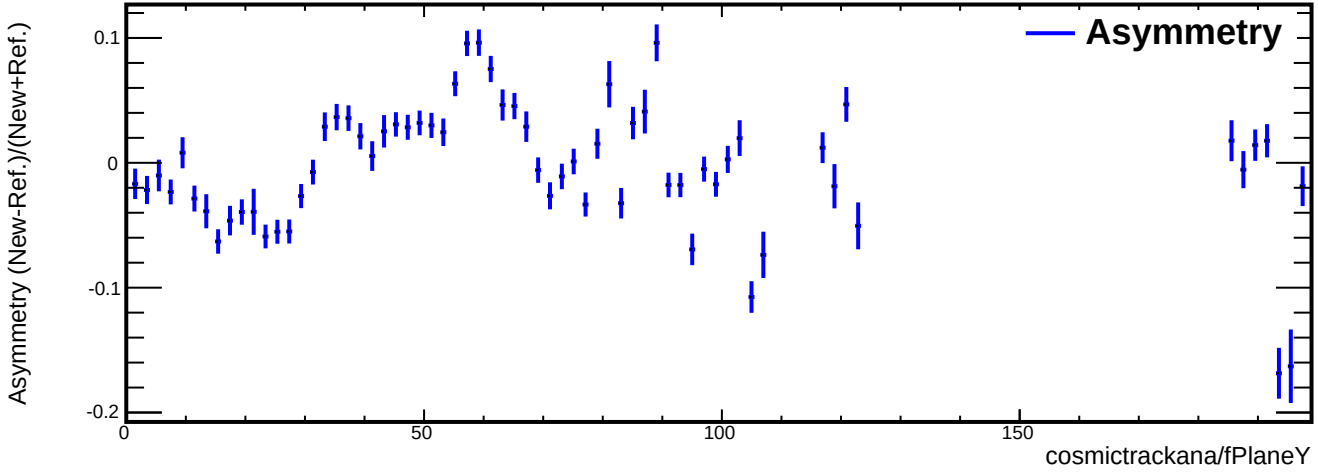

2013-06-15
2013-06-16
KS 0, chi2 0
250
200
150
100
50
0
0
200
400
600
×10^3
cosmictrackana/HitTNSX

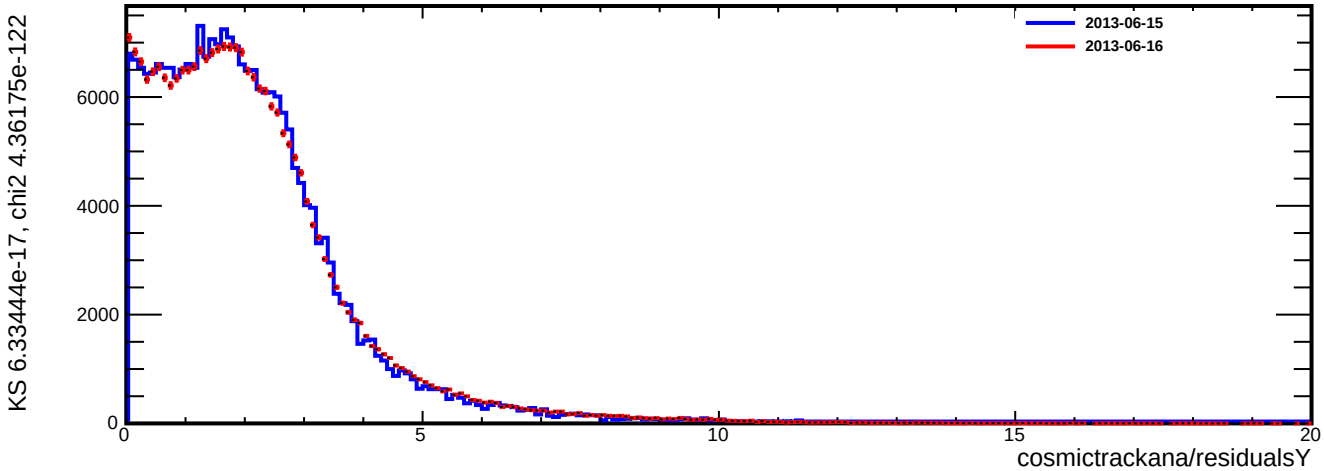

Asymmetry
Asymmetry (New-Ref.)/(New+Ref.)
1
0.5
0
-0.5
-1
0
200
400
600
×10^3
cosmictrackana/HitTNSX

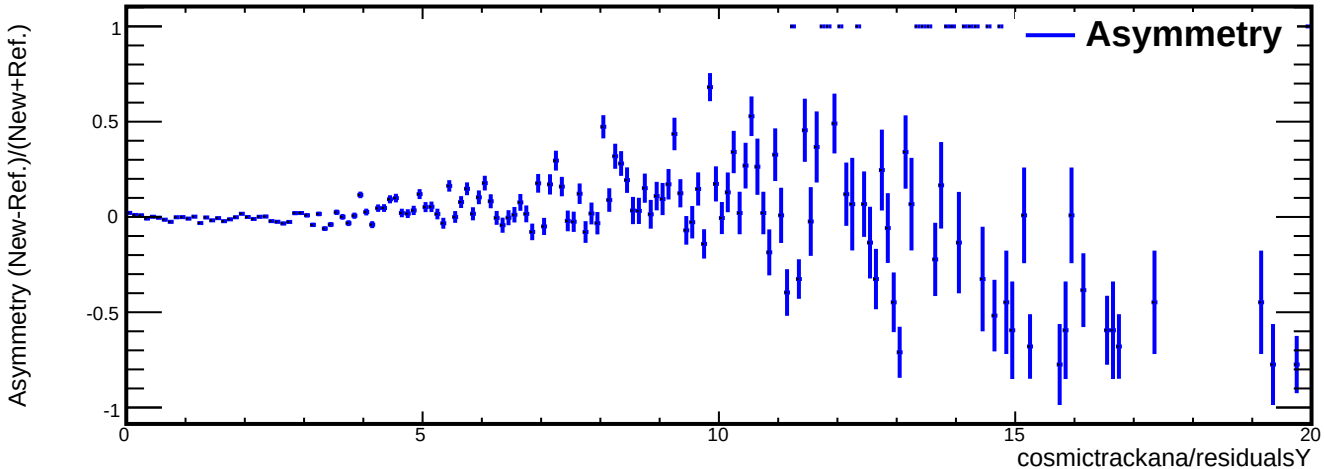

KS 0.0753488, chi2 1.09336e-09
2013-06-15
2013-06-16
3000
2000
1000
0
0
20
40
60
80
cosmictrackana/fCellY

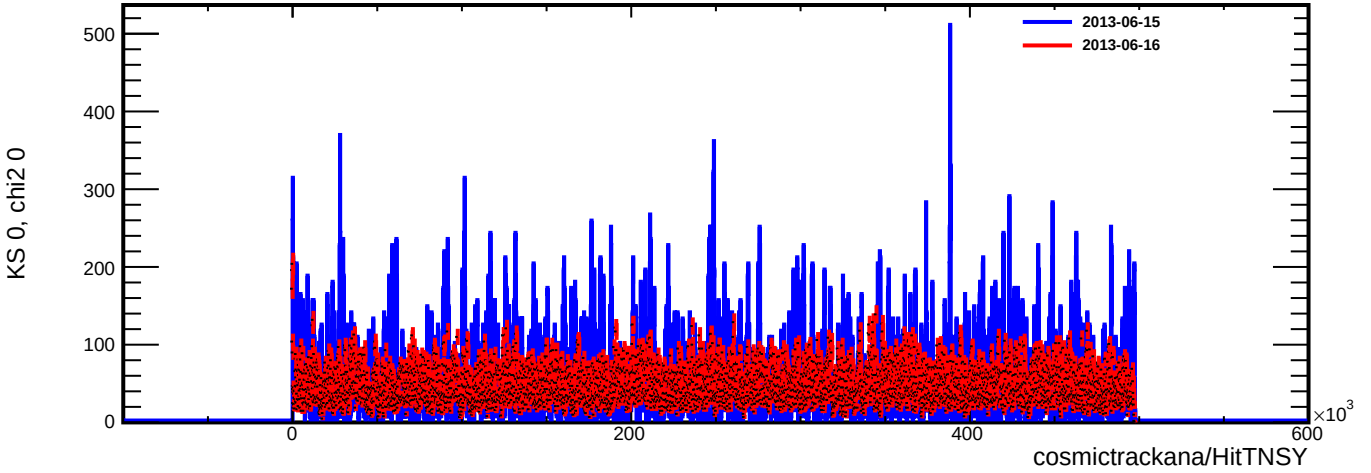

Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
0.05
0
-0.05
0
20
40
60
80
cosmictrackana/fCellY

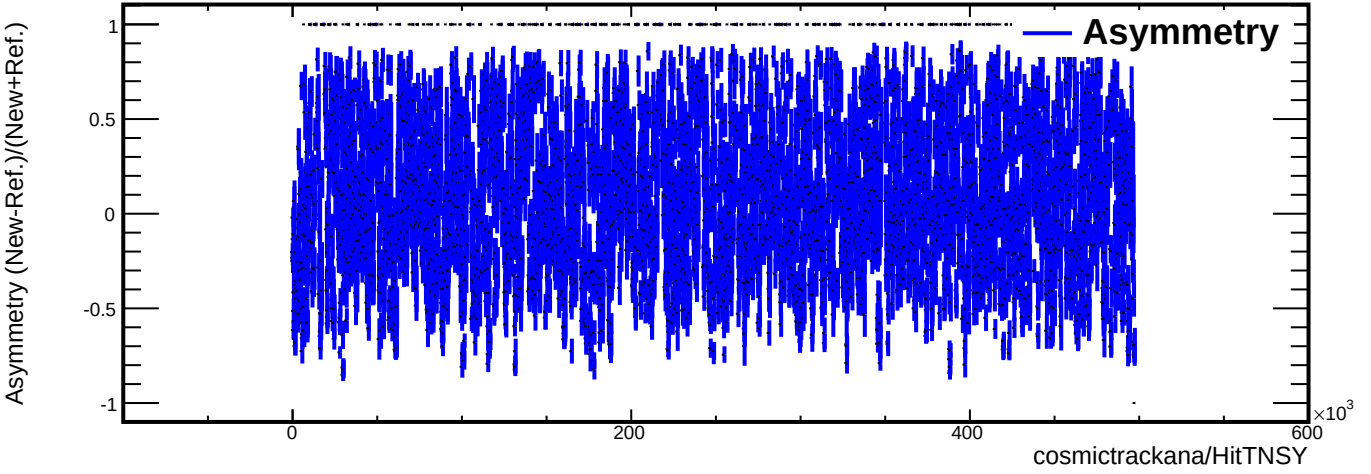

KS 8.18492e-40, chi2 4.70019e-156
6000
4000
2000
0
0
50
100
150
cosmictrackana/fPlaneY
2013-06-15
2013-06-16


Asymmetry (New-Ref.)/(New+Ref.)
0.1
0
-0.1
-0.2
0
50
100
150
cosmictrackana/fPlaneY
Asymmetry


KS 6.33444e-17, chi2 4.36175e-122
2013-06-15
2013-06-16
6000
4000
2000
0
0
5
10
15
20
cosmictrackana/residualsY


Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
1
0.5
0
-0.5
-1
0
5
10
15
20
cosmictrackana/residualsY


2013-06-15
2013-06-16
KS 0, chi2 0
500
400
300
200
100
0
0
200
400
600
×10^3
cosmictrackana/HitTNSY


Asymmetry
Asymmetry (New-Ref.)/(New+Ref.)
1
0.5
0
-0.5
-1
0
200
400
600
×10^3
cosmictrackana/HitTNSY