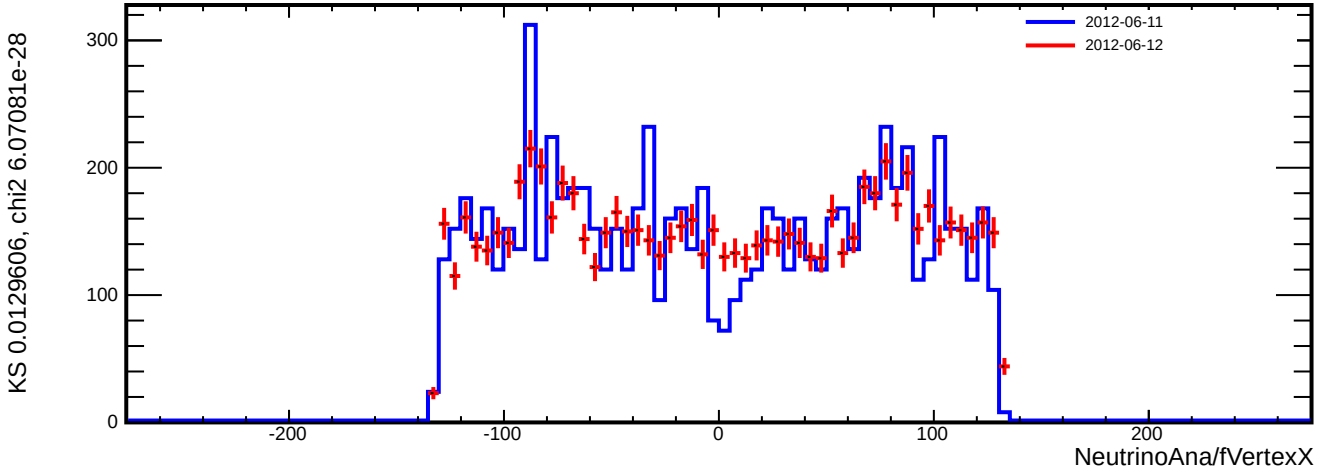
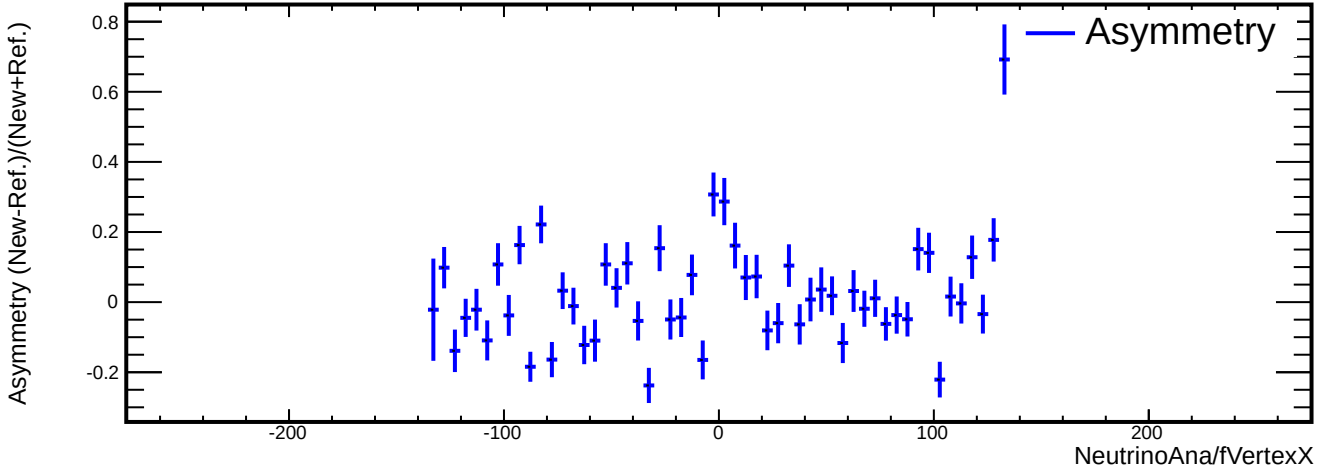
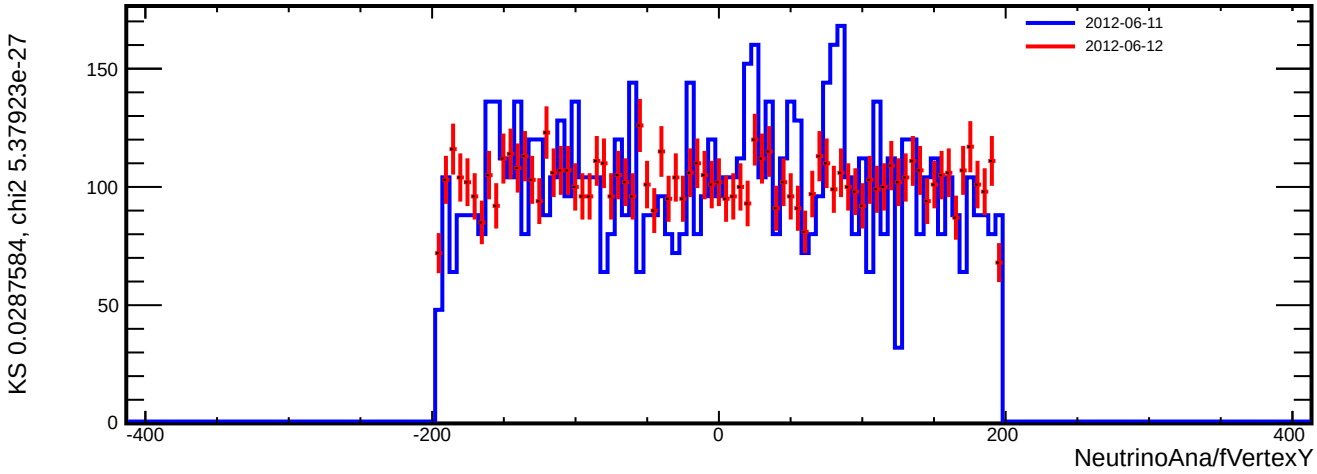
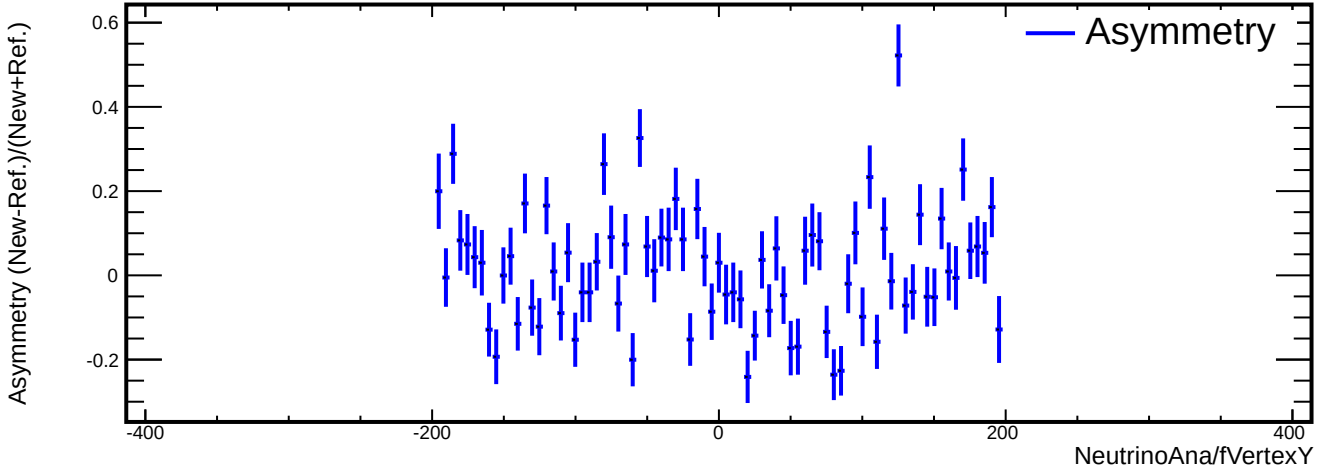
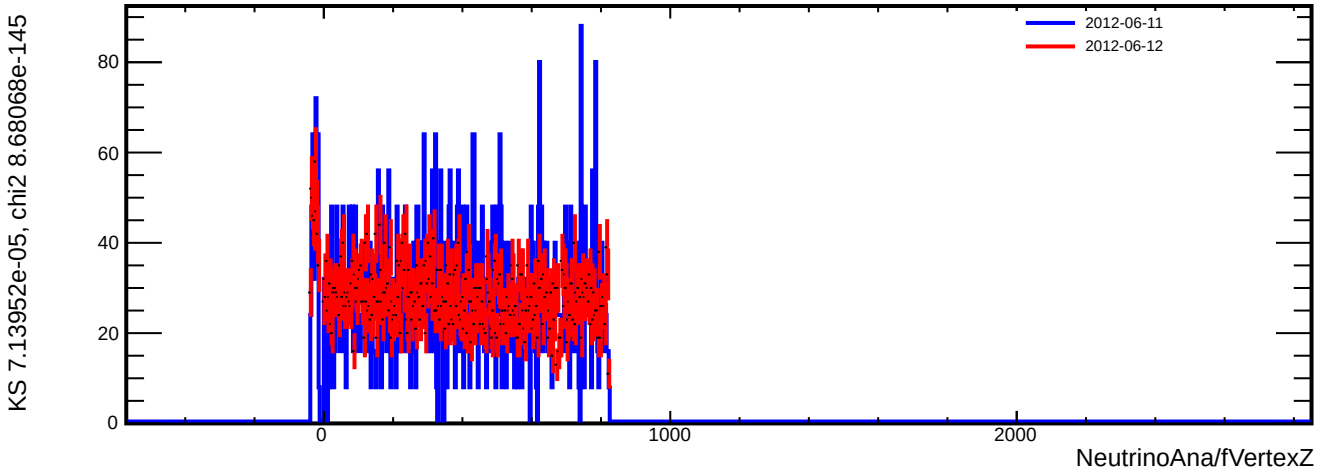
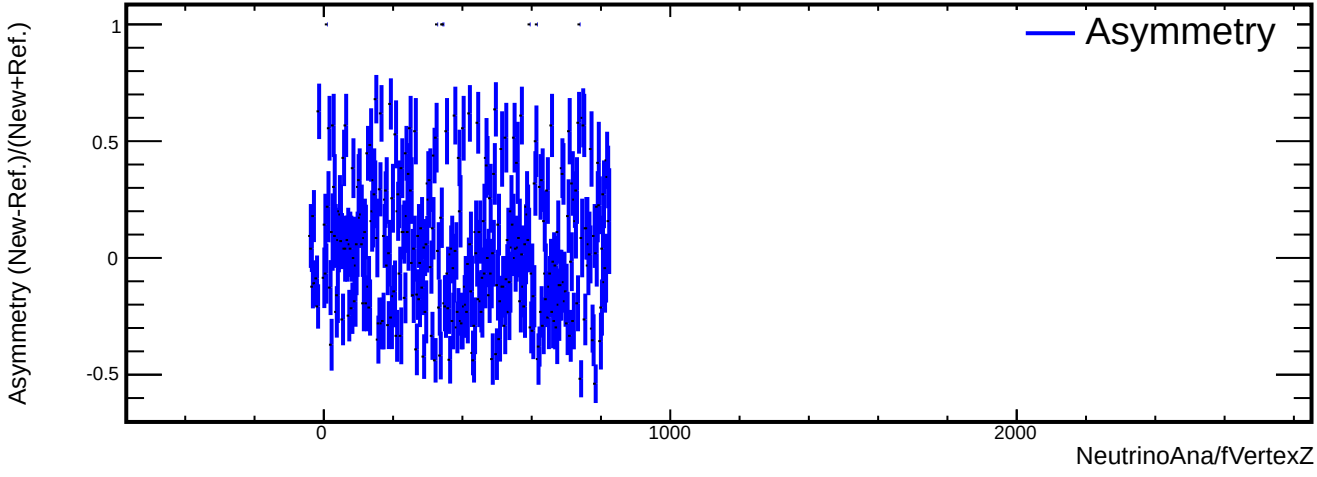

KS 0.0129606, chi2 6.07081e-28
2012-06-11
2012-06-12
300
200
100
0
-200
-100
0
100
200
NeutrinoAna/fVertexX

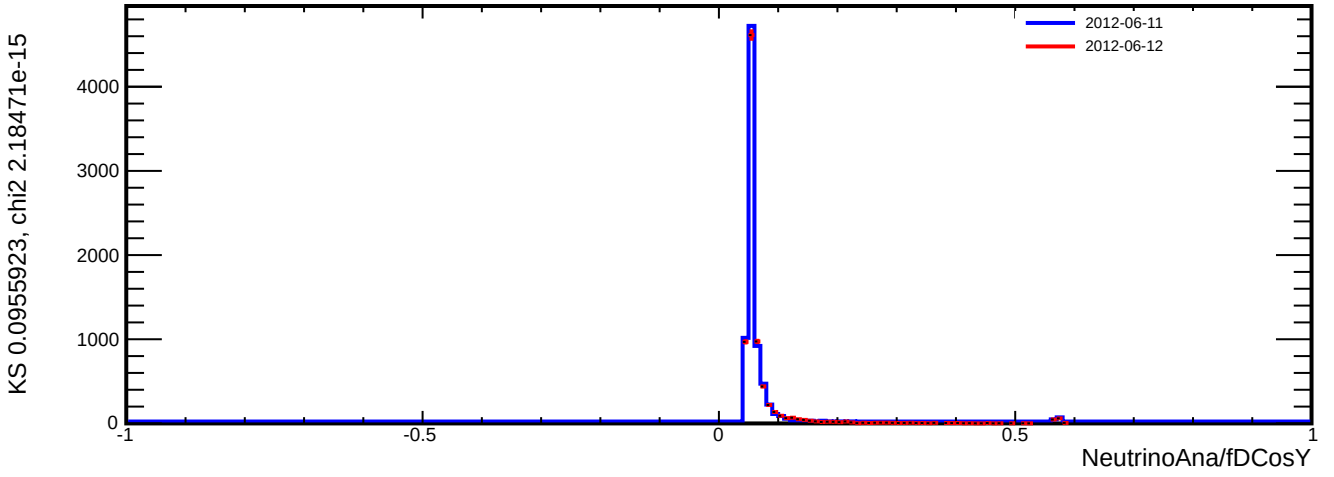

Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
0.8
0.6
0.4
0.2
0
-0.2
-200
-100
0
100
200
NeutrinoAna/fVertexX

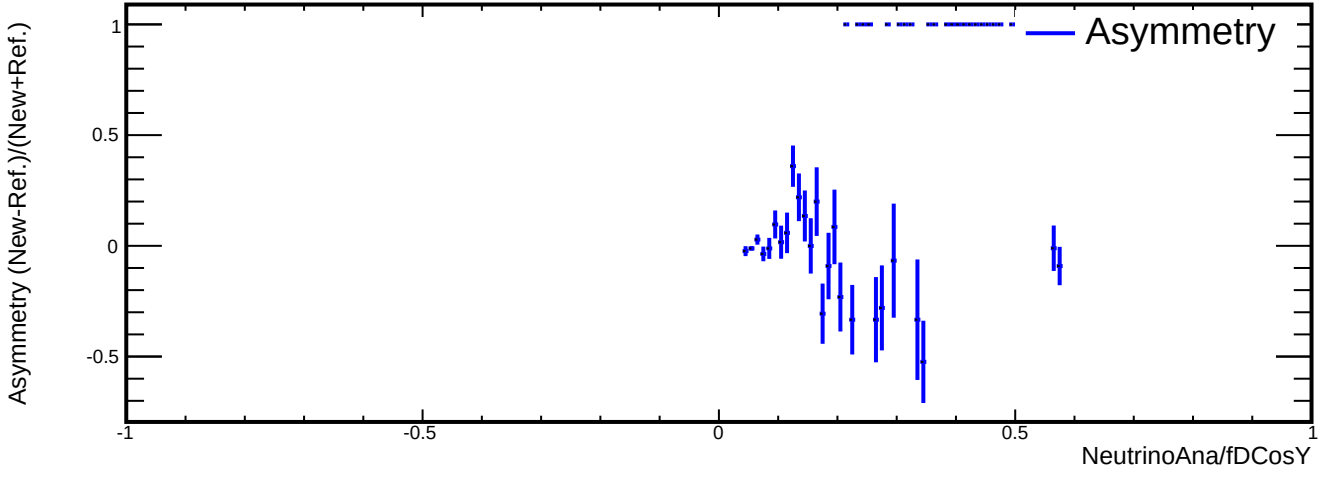

KS 0.0287584, chi2 5.37923e-27
2012-06-11
2012-06-12
150
100
50
0
-400
-200
0
200
400
NeutrinoAna/fVertexY

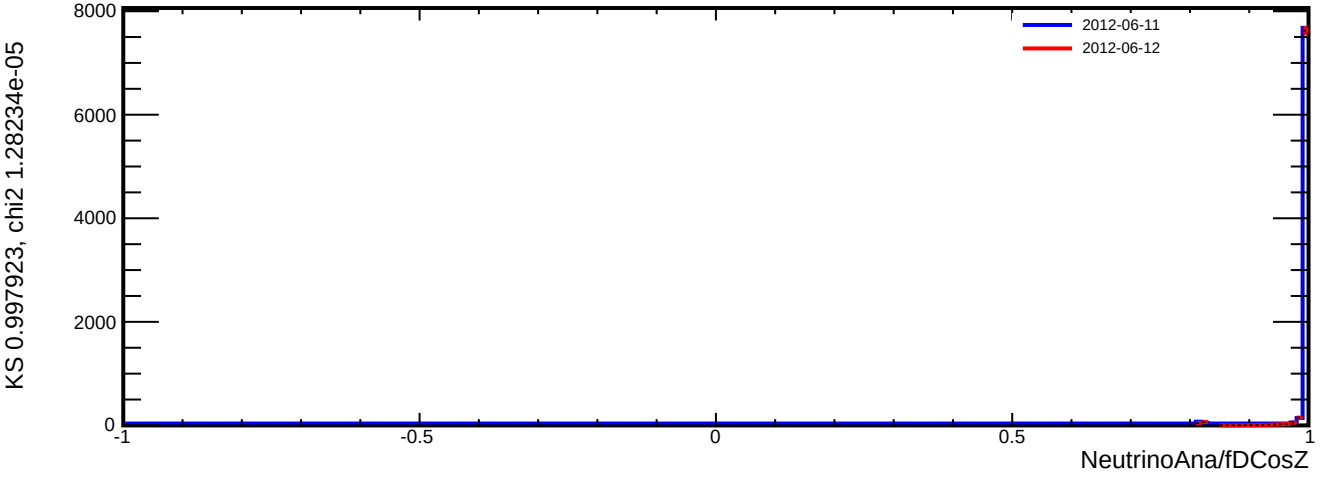

Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
0.6
0.4
0.2
0
-0.2
-400
-200
0
200
400
NeutrinoAna/fVertexY

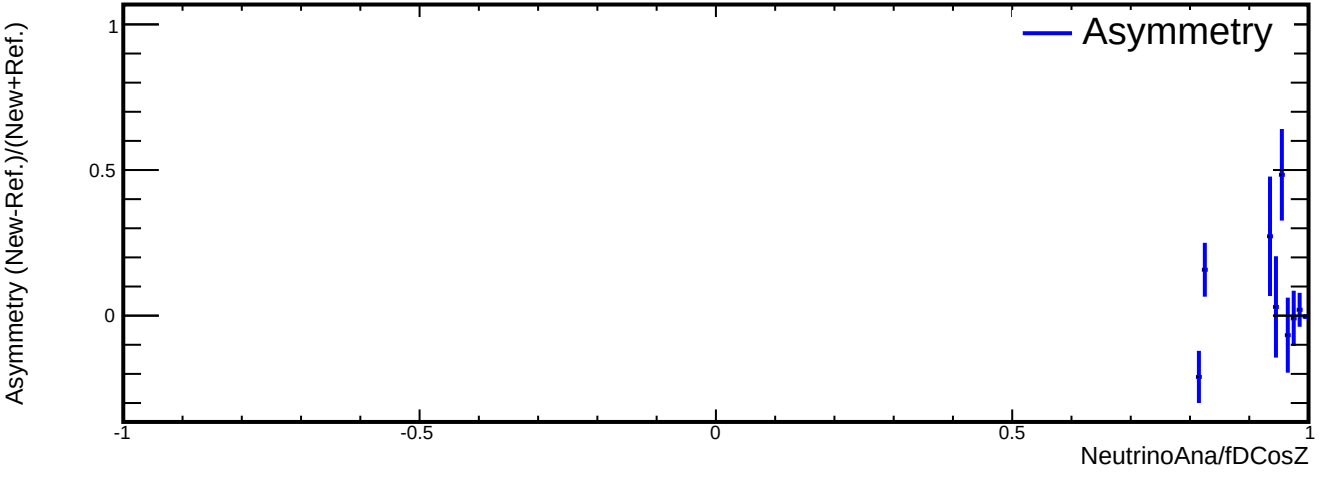

KS 7.13952e-05, chi2 8.68068e-145
2012-06-11
2012-06-12
80
60
40
20
0
0
1000
2000
NeutrinoAna/fVertexZ

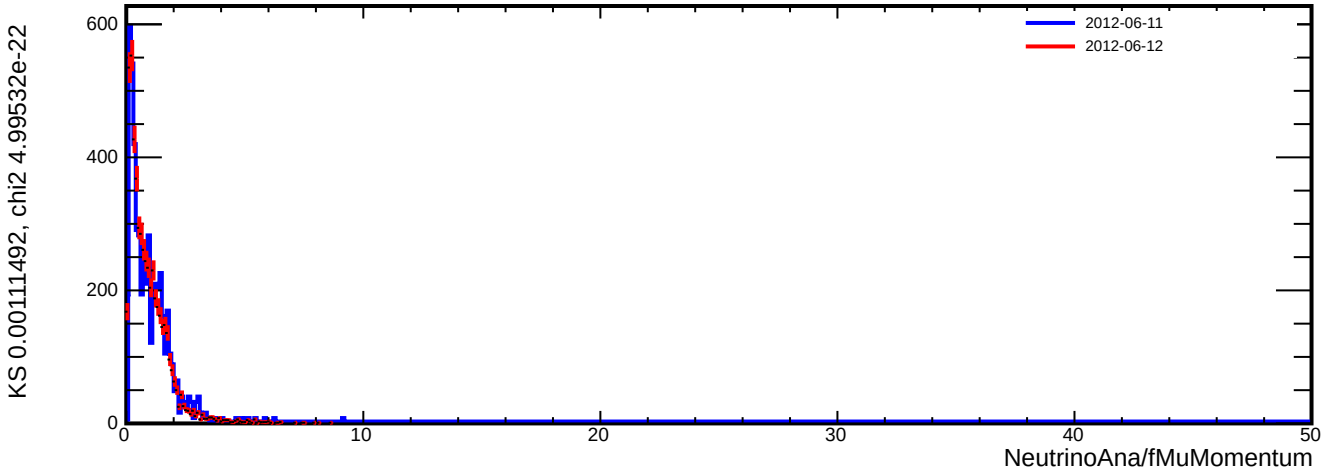

Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
1
0.5
0
-0.5
0
1000
2000
NeutrinoAna/fVertexZ

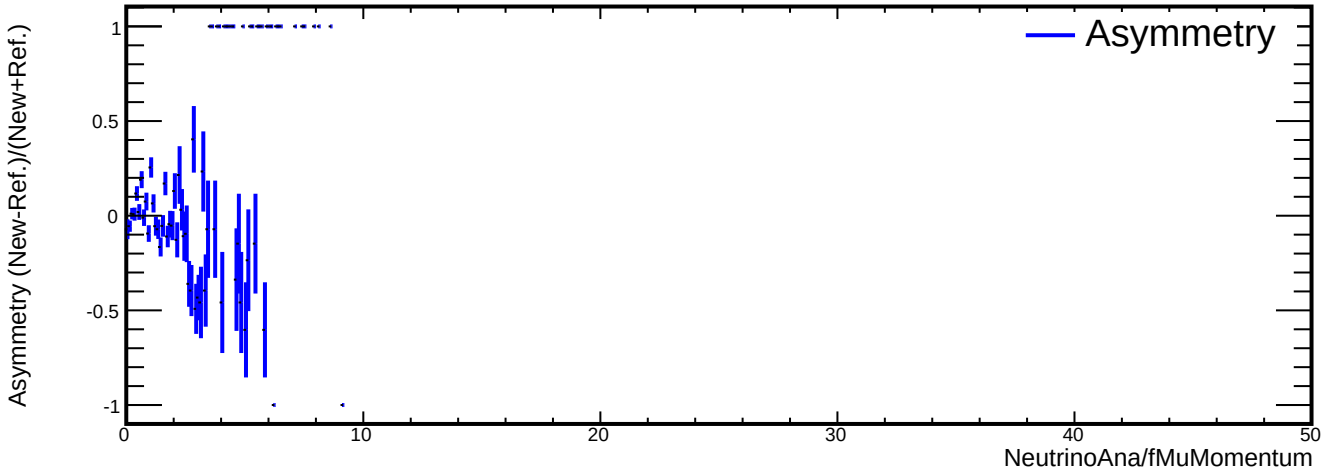

KS 0.0955923, chi2 2.18471e-15
2012-06-11
2012-06-12
4000
3000
2000
1000
0
-1
-0.5
0
0.5
1
NeutrinoAna/fDCosY

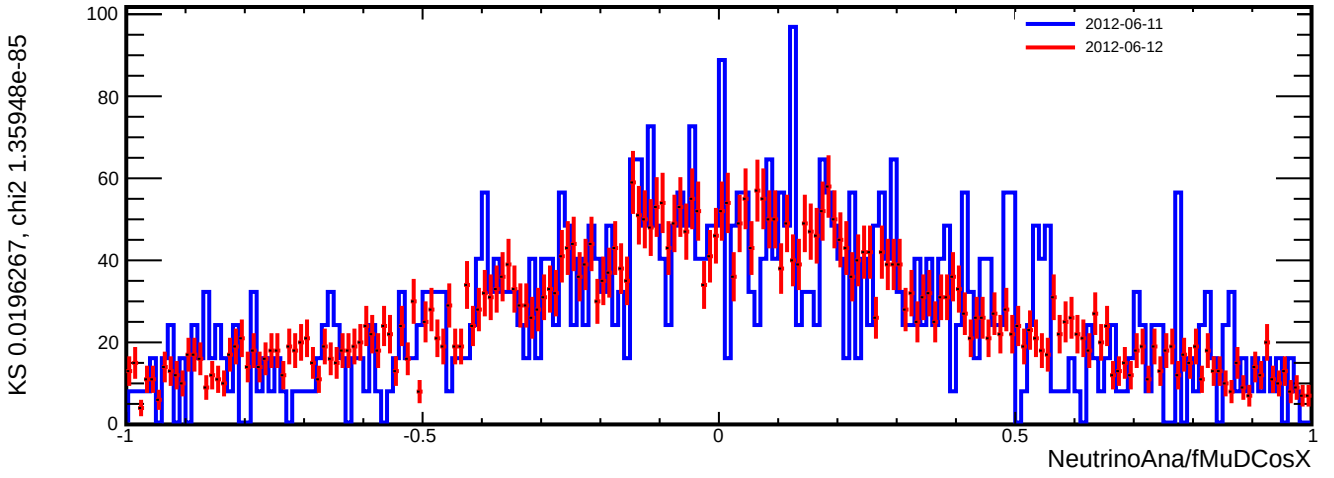

Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
1
0.5
0
-0.5
-1
-0.5
0
0.5
1
NeutrinoAna/fDCosY

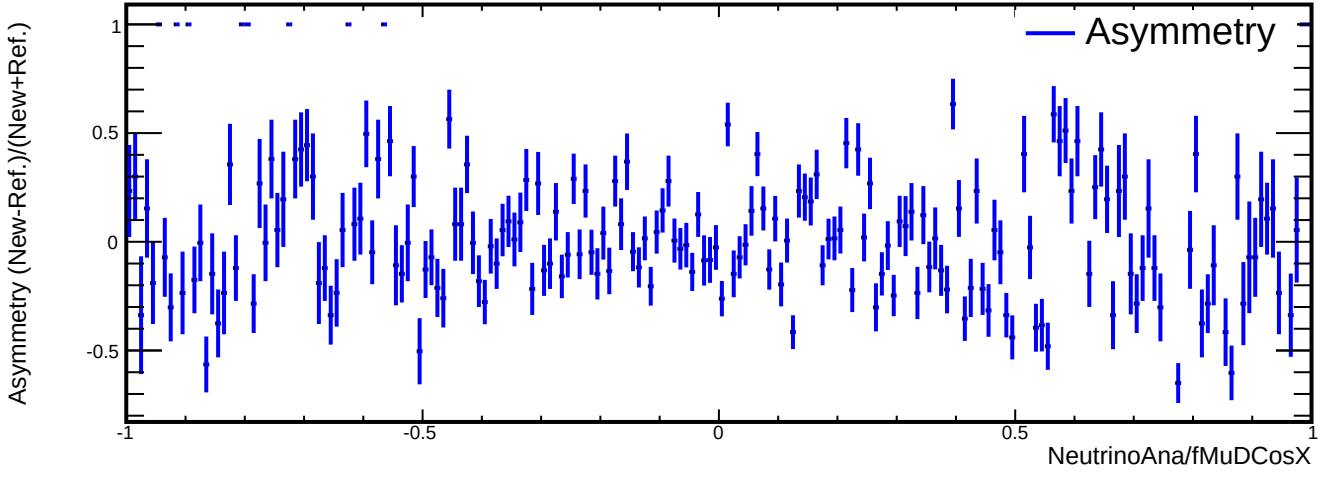

KS 0.997923, chi2 1.28234e-05
8000
6000
4000
2000
0
-1
-0.5
0
0.5
1
NeutrinoAna/fDCosZ
2012-06-11
2012-06-12

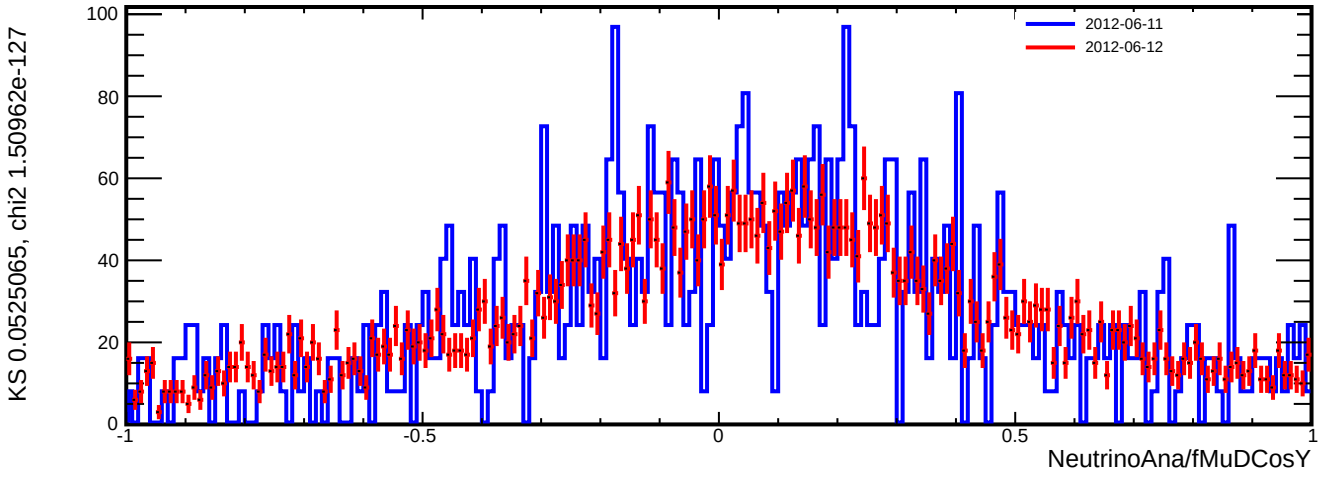

Asymmetry (New-Ref.)/(New+Ref.)
1
0.5
0
-1
-0.5
0
0.5
1
NeutrinoAna/fDCosZ
Asymmetry

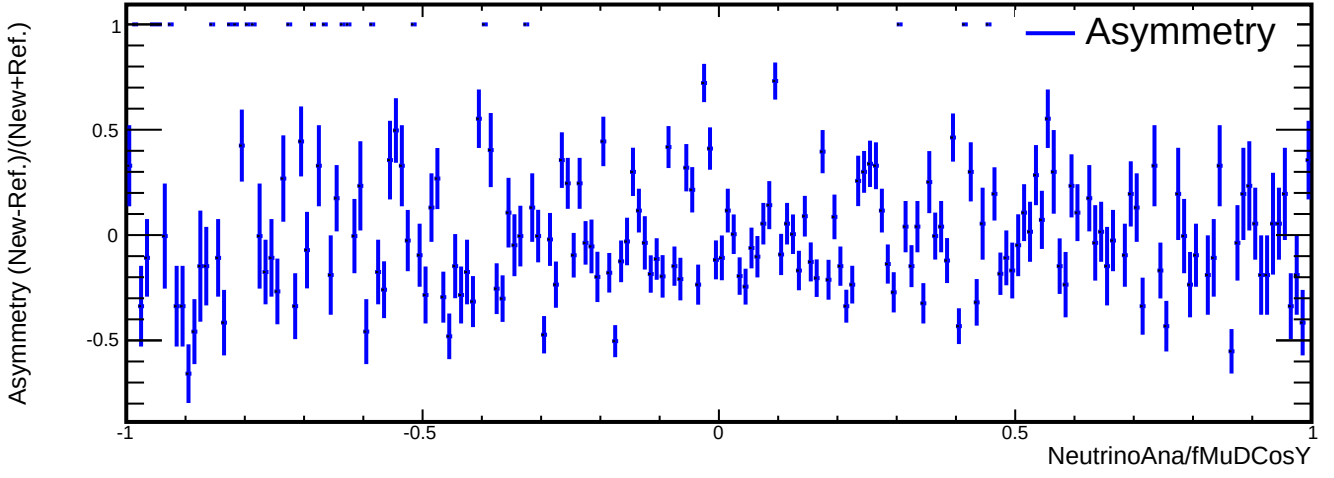

KS 0.00111492, chi2 4.99532e-22
600
400
200
0
0
10
20
30
40
50
NeutrinoAna/fMuMomentum
2012-06-11
2012-06-12

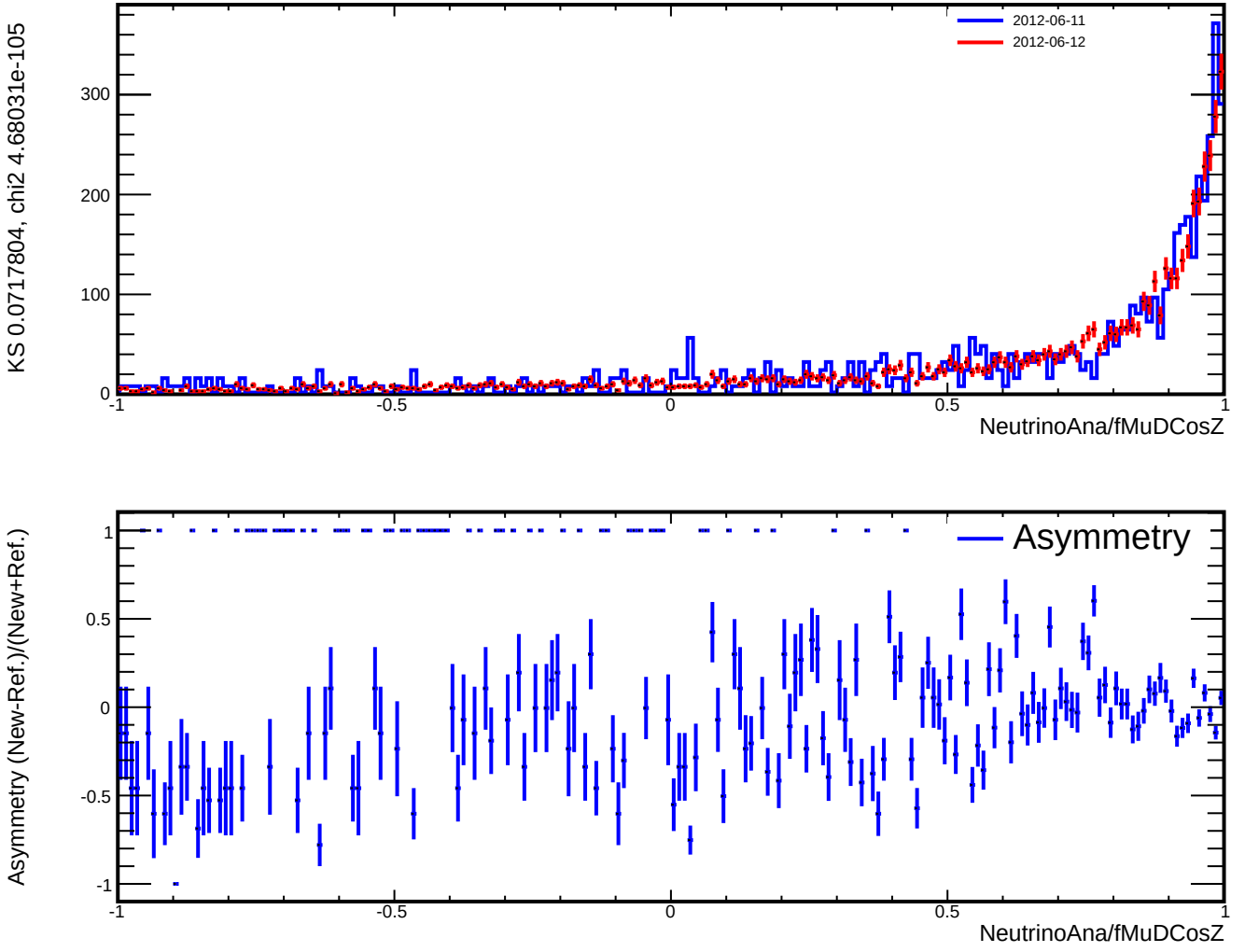

Asymmetry (New-Ref.)/(New+Ref.)
1
0.5
0
-0.5
-1
0
10
20
30
40
50
NeutrinoAna/fMuMomentum
Asymmetry

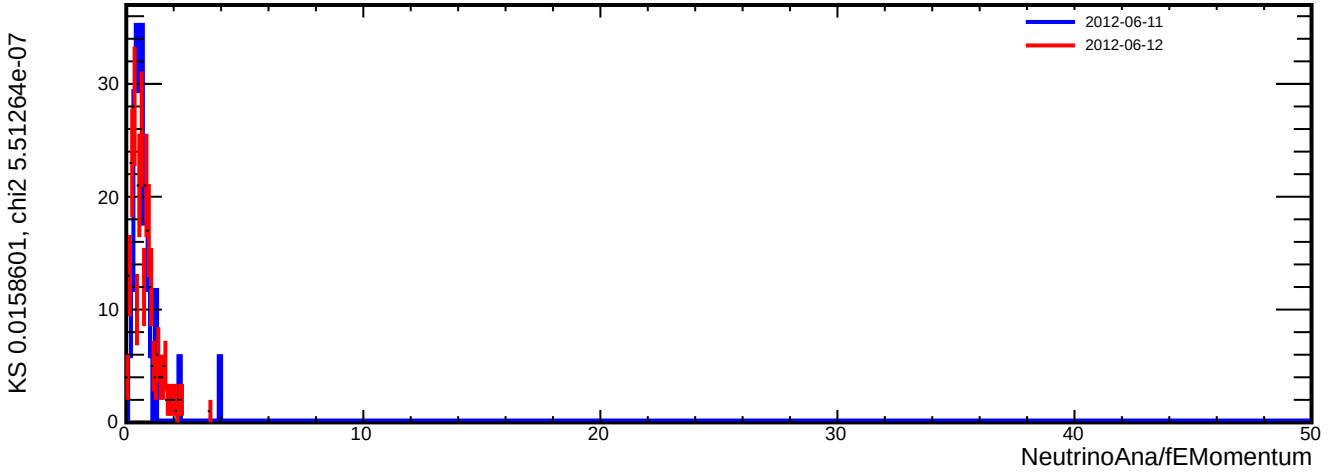

KS 0.0196267, chi2 1.35948e-85
2012-06-11
2012-06-12
NeutrinoAna/fMuDCosX

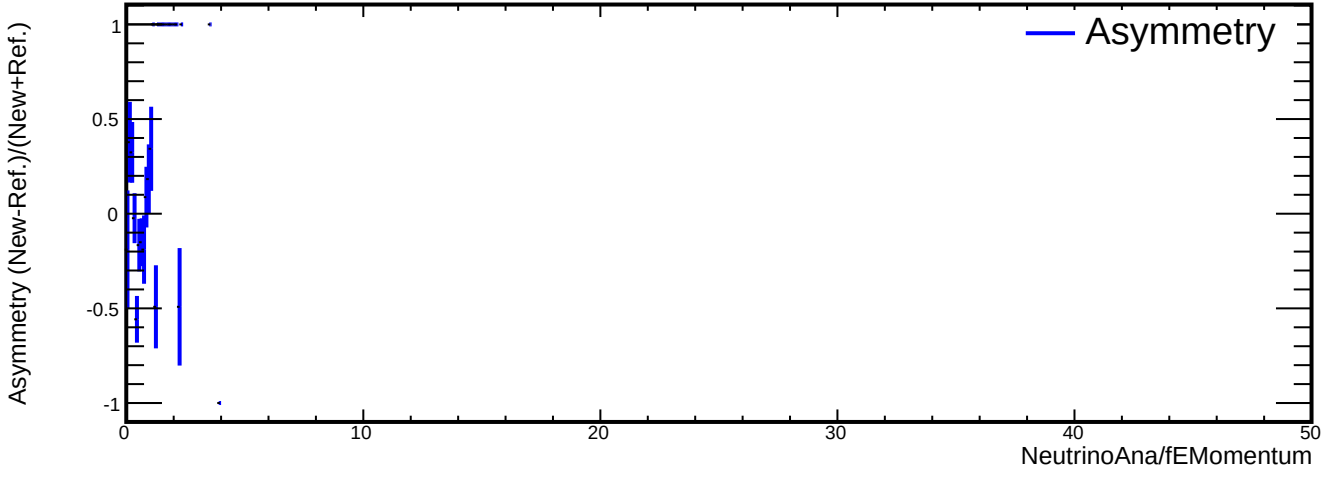

Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
NeutrinoAna/fMuDCosX

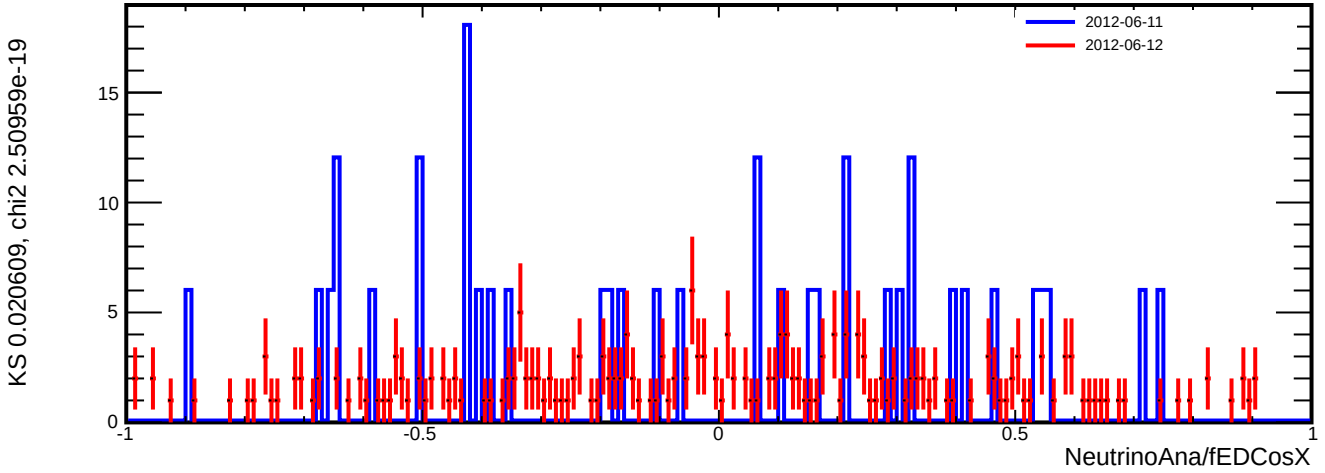

KS 0.0525065, chi2 1.50962e-127
2012-06-11
2012-06-12
NeutrinoAna/fMuDCosY

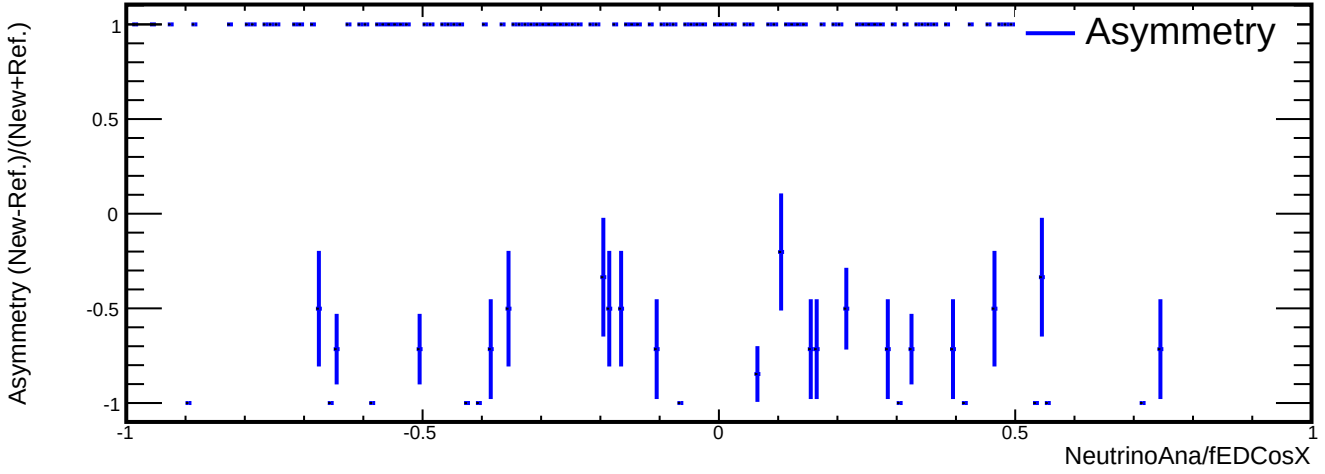

Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
NeutrinoAna/fMuDCosY

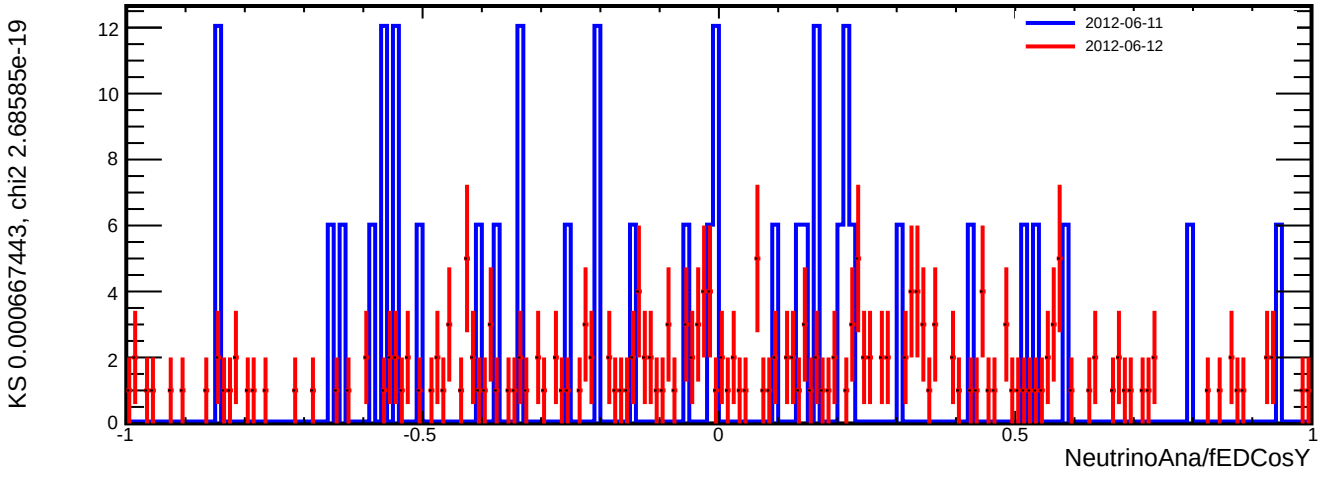

KS 0.0717804, chi2 4.68031e-105
2012-06-11
2012-06-12
300
200
100
0
-1
-0.5
0
0.5
1
NeutrinoAna/fMuDCosZ
Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
1
0.5
0
-0.5
-1
-1
-0.5
0
0.5
1
NeutrinoAna/fMuDCosZ

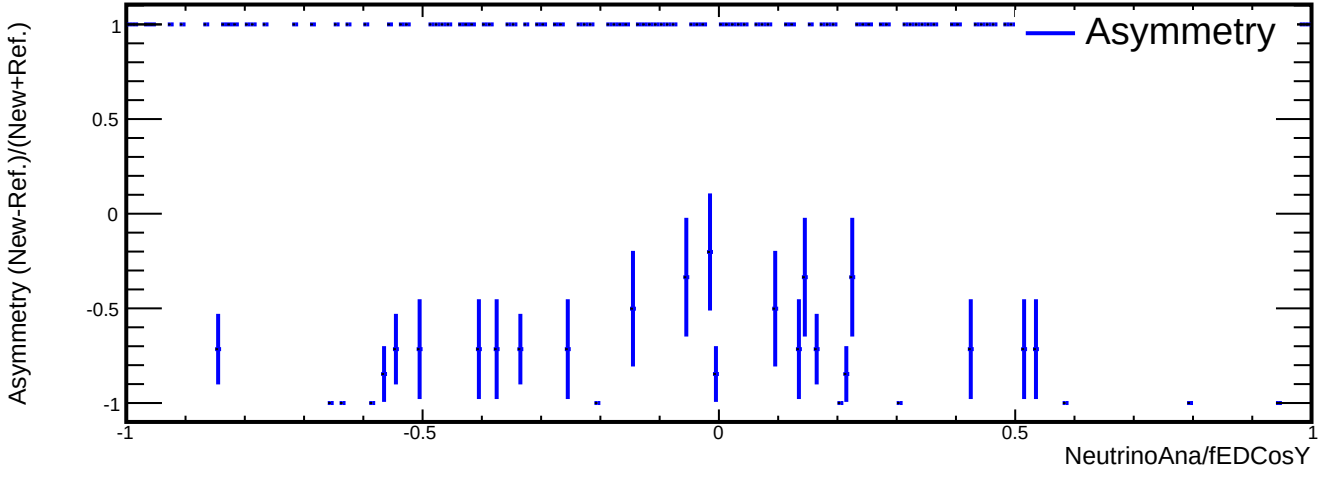

KS 0.0158601, chi2 5.51264e-07
2012-06-11
2012-06-12
0
10
20
30
0
10
20
30
40
50
NeutrinoAna/fEMomentum

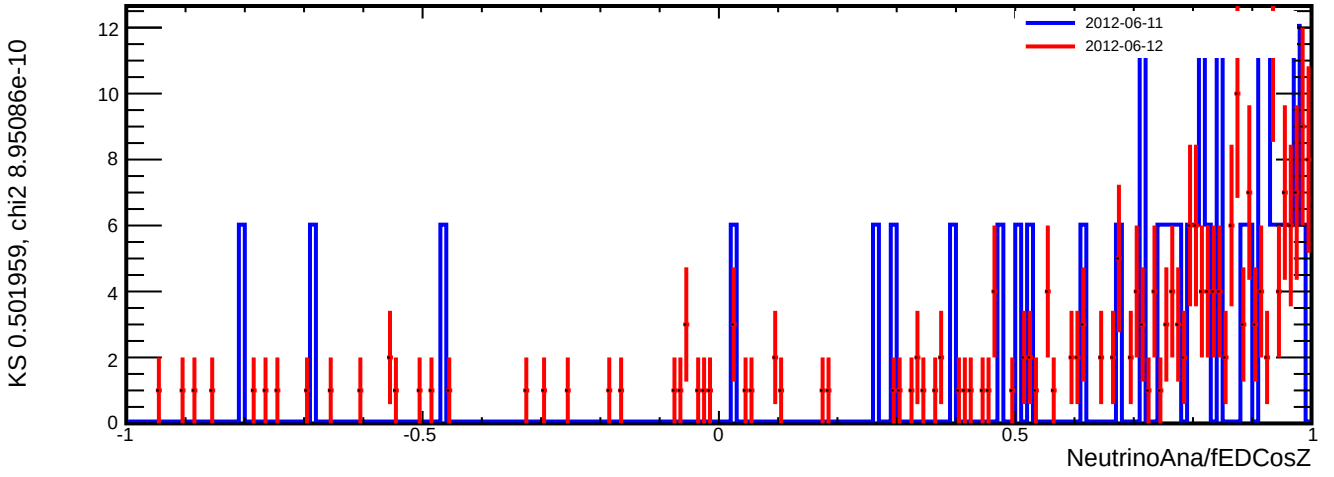

Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
1
0.5
0
-0.5
-1
0
10
20
30
40
50
NeutrinoAna/fEMomentum

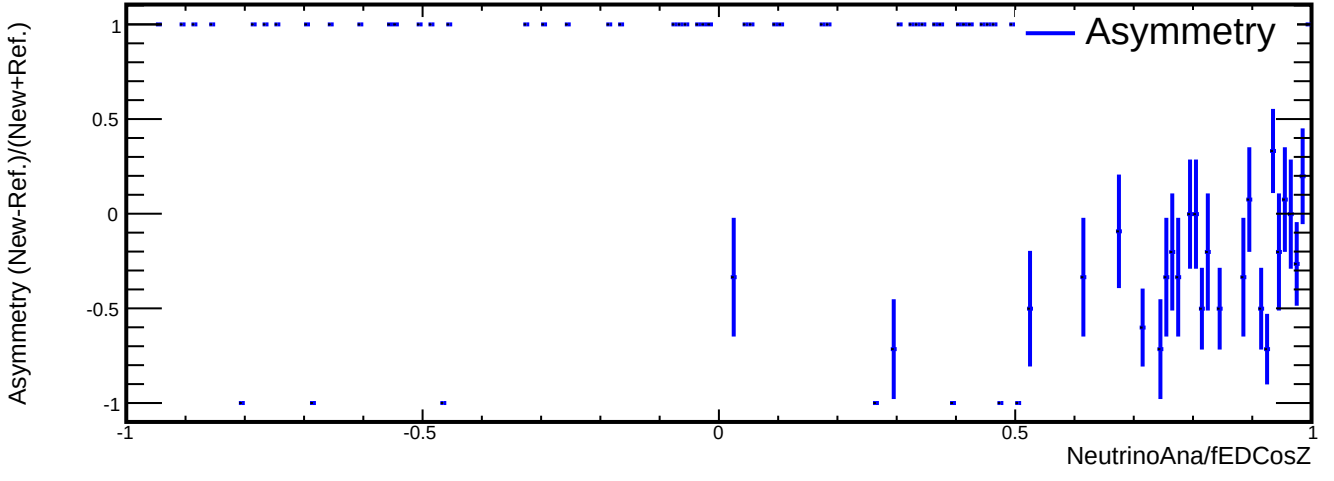

KS 0.020609, chi2 2.50959e-19
2012-06-11
2012-06-12
NeutrinoAna/fEDCosX

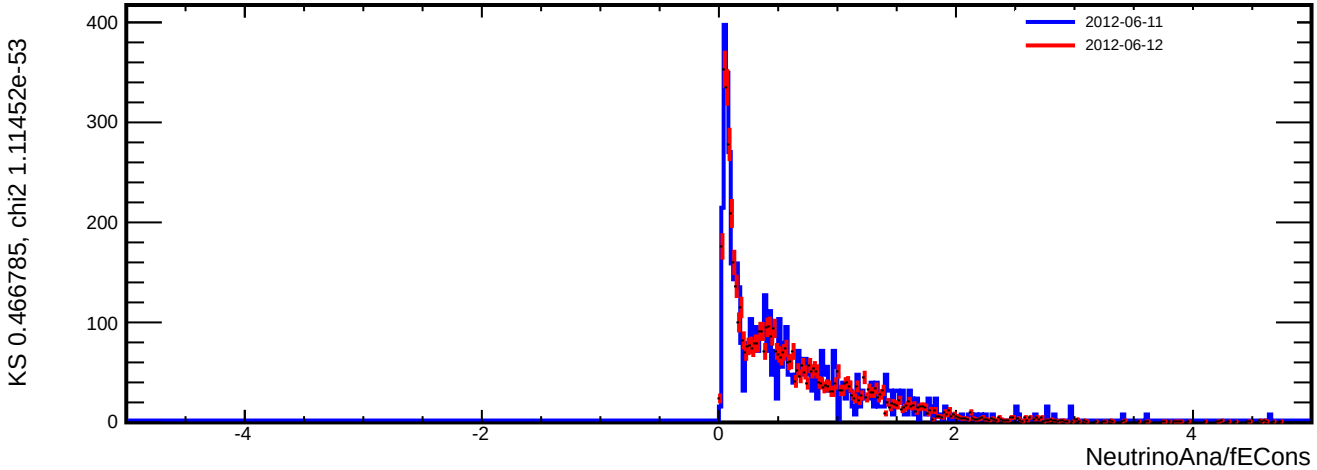

Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
NeutrinoAna/fEDCosX

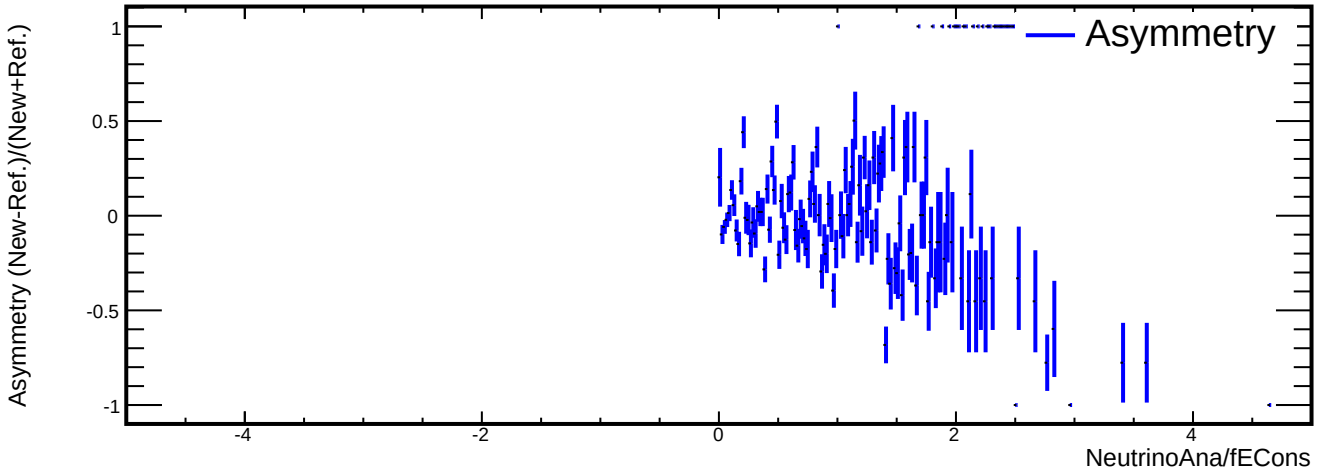

KS 0.000667443, chi2 2.68585e-19
2012-06-11
2012-06-12
NeutrinoAna/fEDCosY

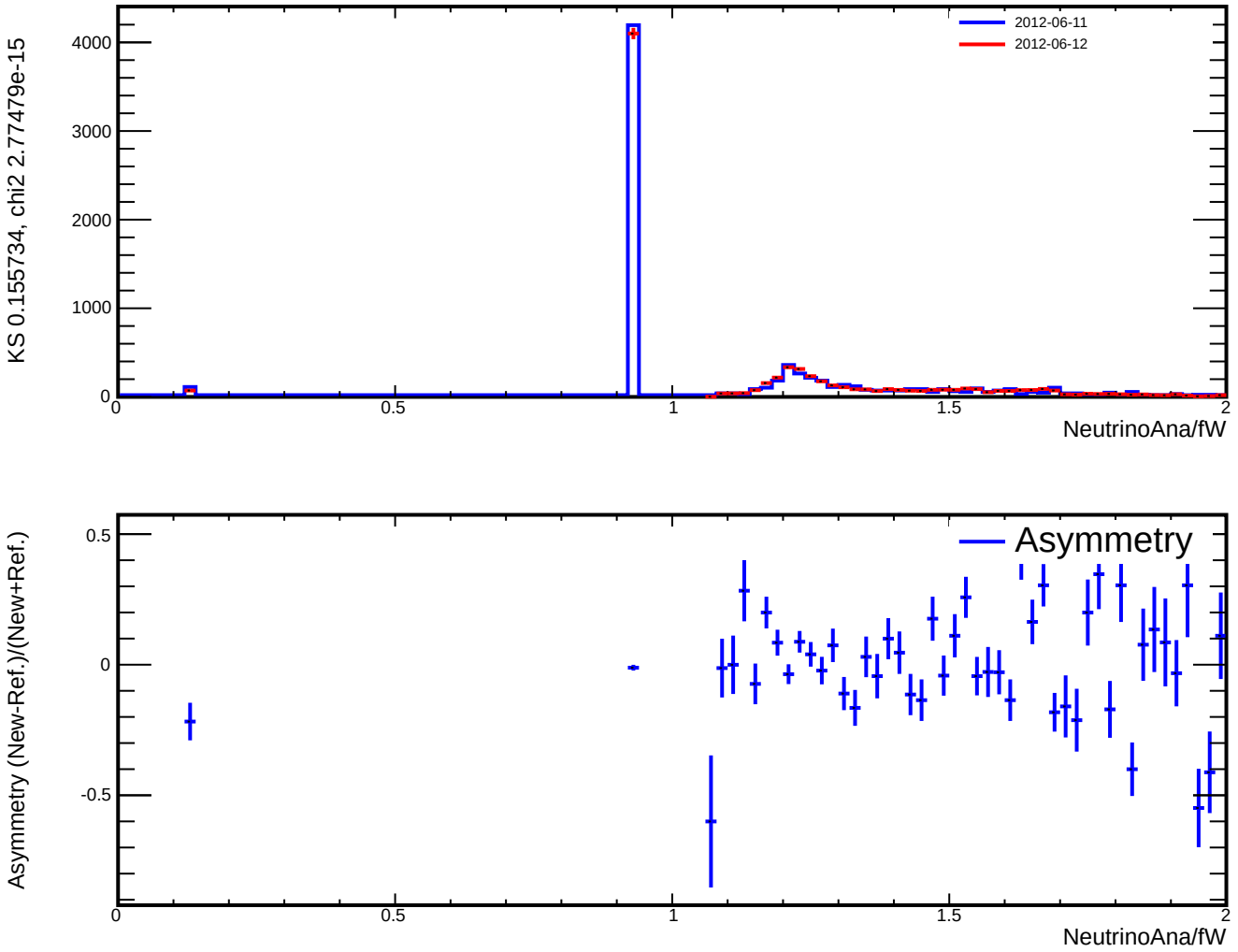

Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
NeutrinoAna/fEDCosY

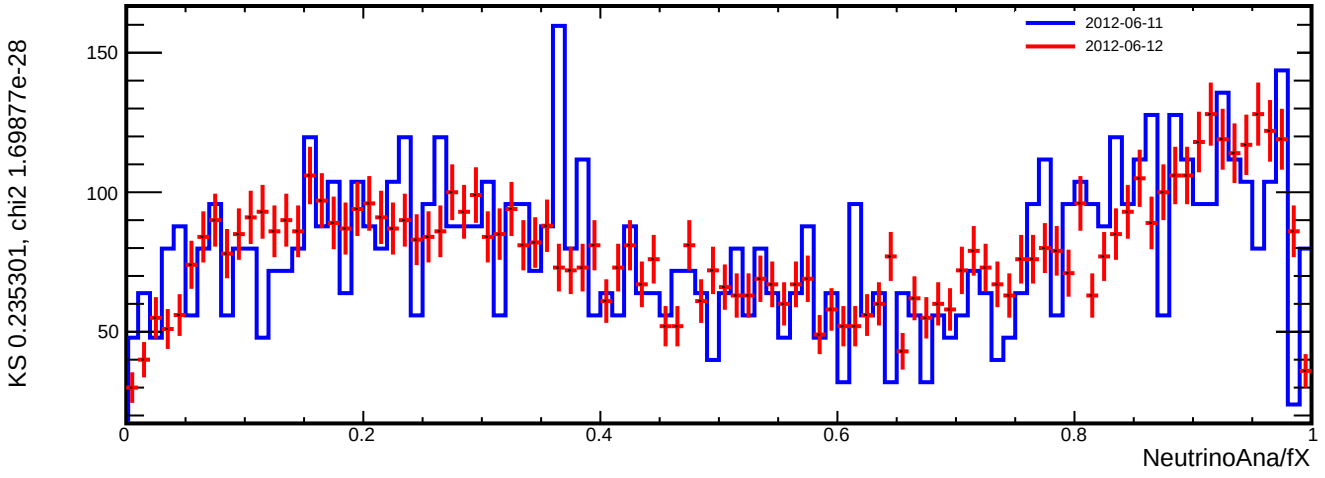

KS 0.501959, chi2 8.95086e-10
2012-06-11
2012-06-12
NeutrinoAna/fEDCosZ

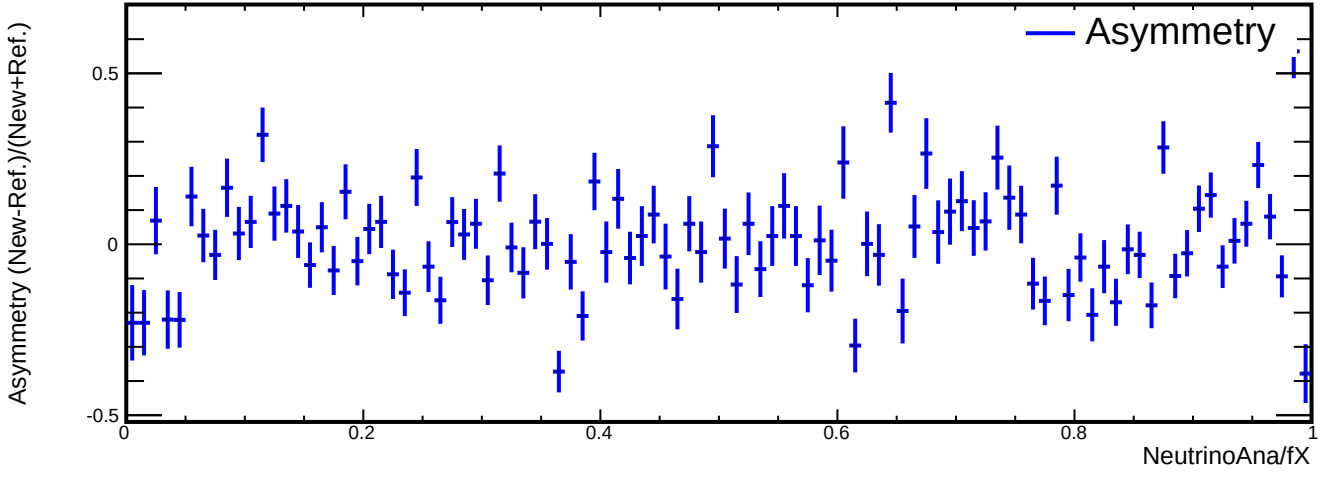

Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
NeutrinoAna/fEDCosZ

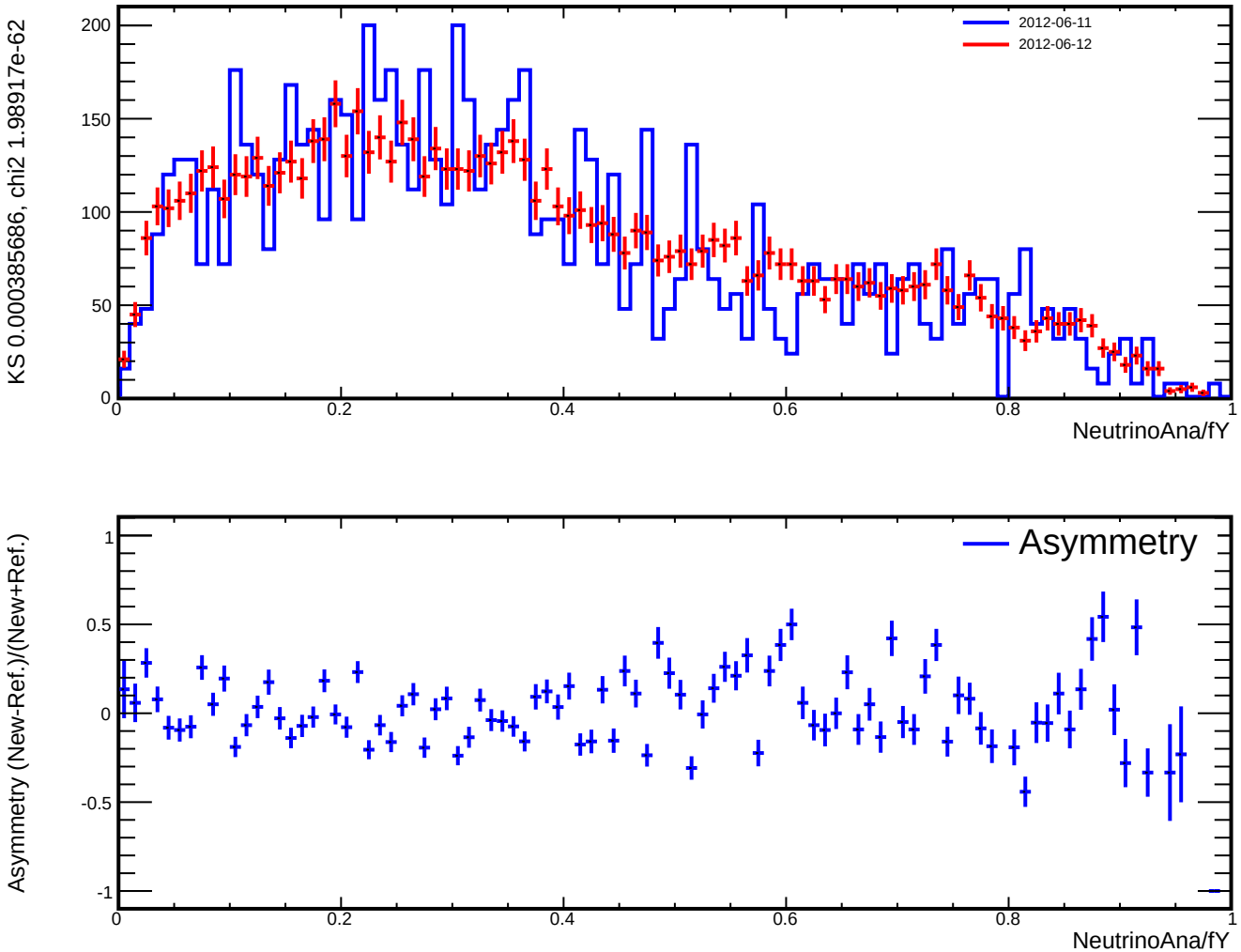

KS 0.466785, chi2 1.11452e-53
400
300
200
100
0
-4
-2
0
2
4
NeutrinoAna/fECons
2012-06-11
2012-06-12

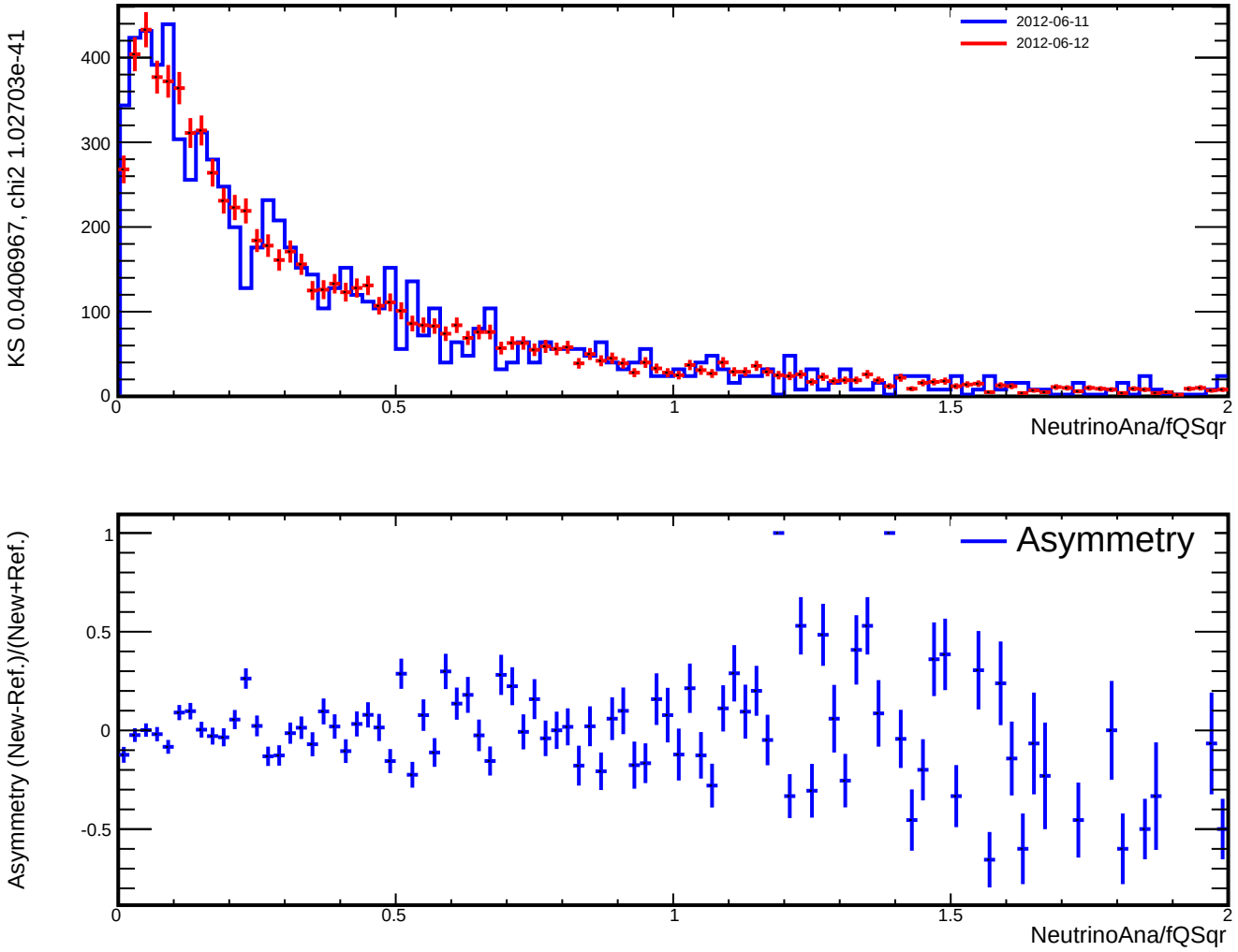

Asymmetry (New-Ref.)/(New+Ref.)
1
0.5
0
-0.5
-1
-4
-2
0
2
4
NeutrinoAna/fECons
Asymmetry

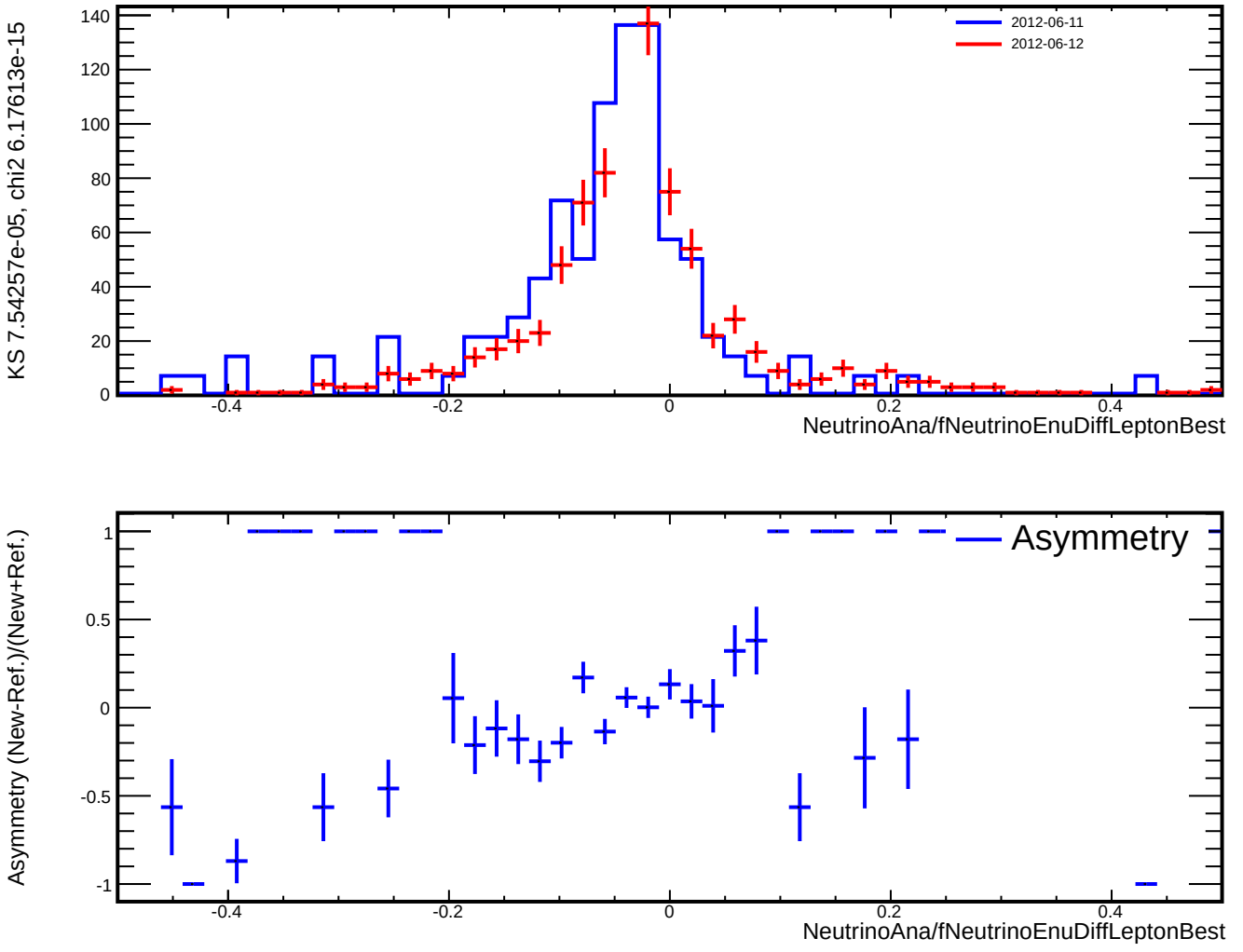

KS 0.155734, chi2 2.77479e-15
2012-06-11
2012-06-12
4000
3000
2000
1000
0
0
0.5
1
1.5
2
NeutrinoAna/fW
Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
0.5
0
-0.5
0
0.5
1
1.5
2
NeutrinoAna/fW

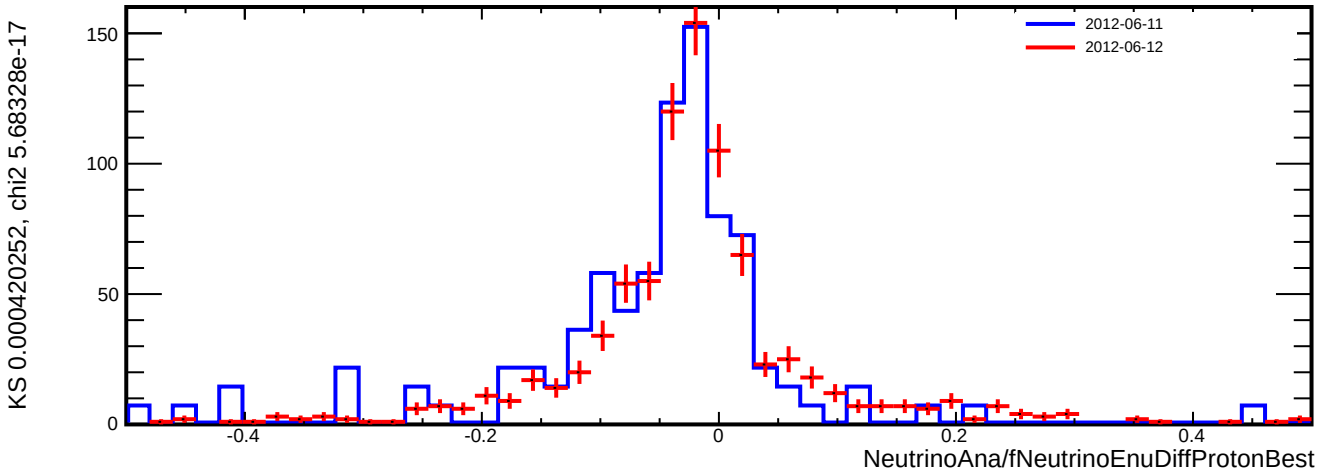

KS 0.235301, chi2 1.69877e-28
2012-06-11
2012-06-12
150
100
50
0
0.2
0.4
0.6
0.8
1
NeutrinoAna/fX

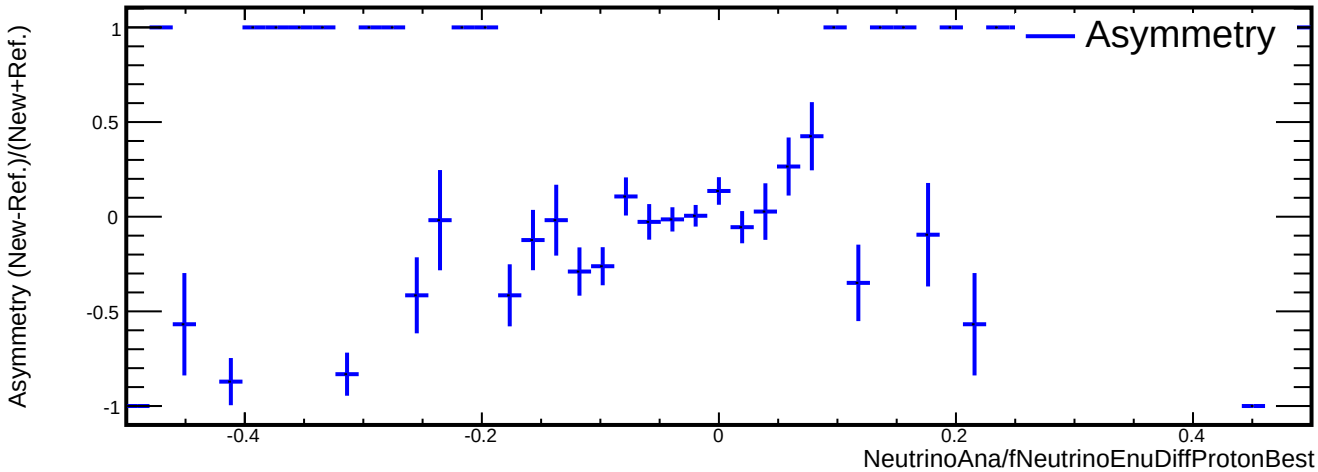

Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
0.5
0
-0.5
0
0.2
0.4
0.6
0.8
1
NeutrinoAna/fX

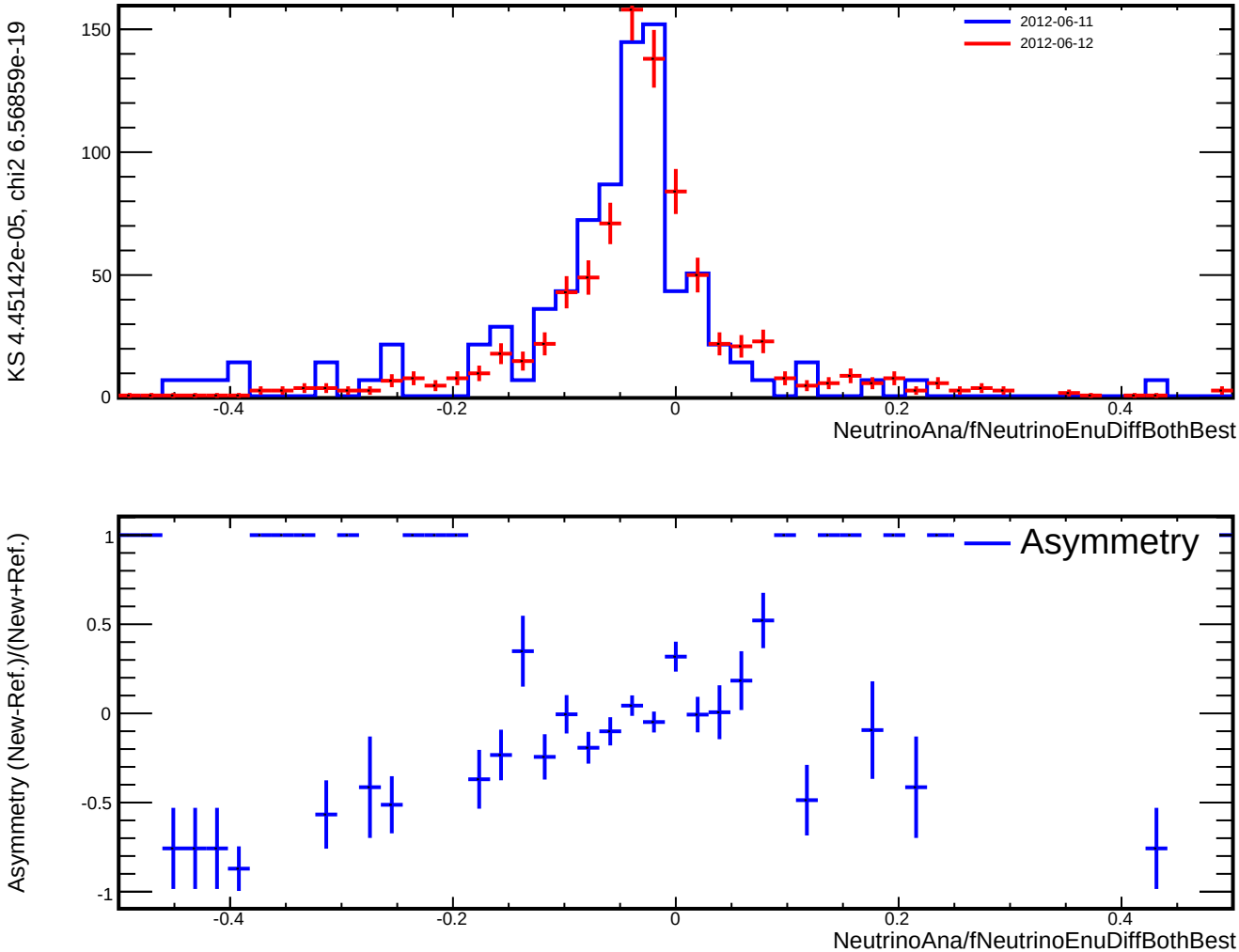

KS 0.000385686, chi2 1.98917e-62
2012-06-11
2012-06-12
NeutrinoAna/fY
Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
NeutrinoAna/fY

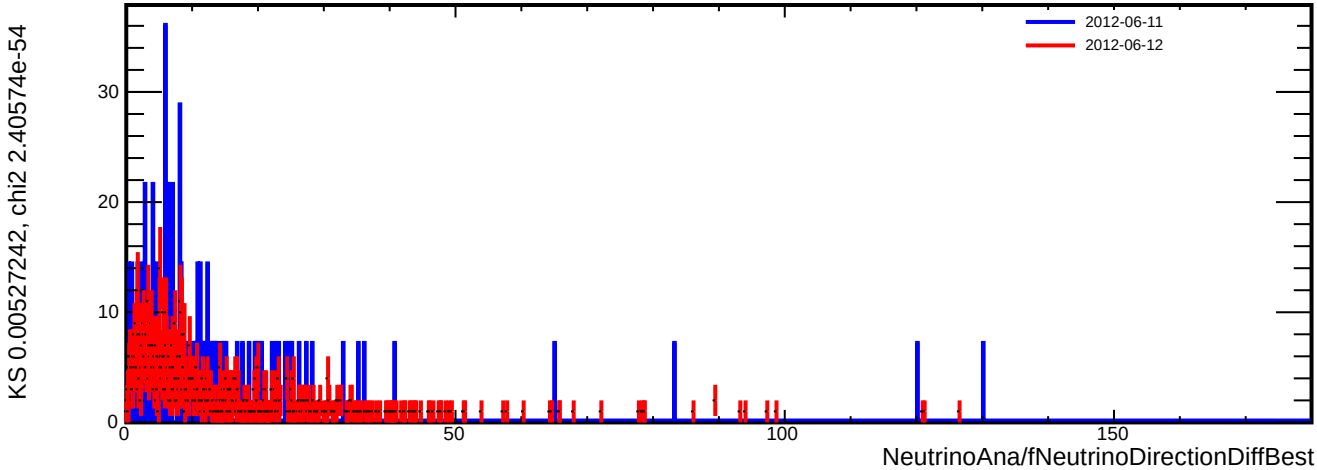

KS 0.0406967, chi2 1.02703e-41
2012-06-11
2012-06-12
NeutrinoAna/fQSqr
Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
NeutrinoAna/fQSqr

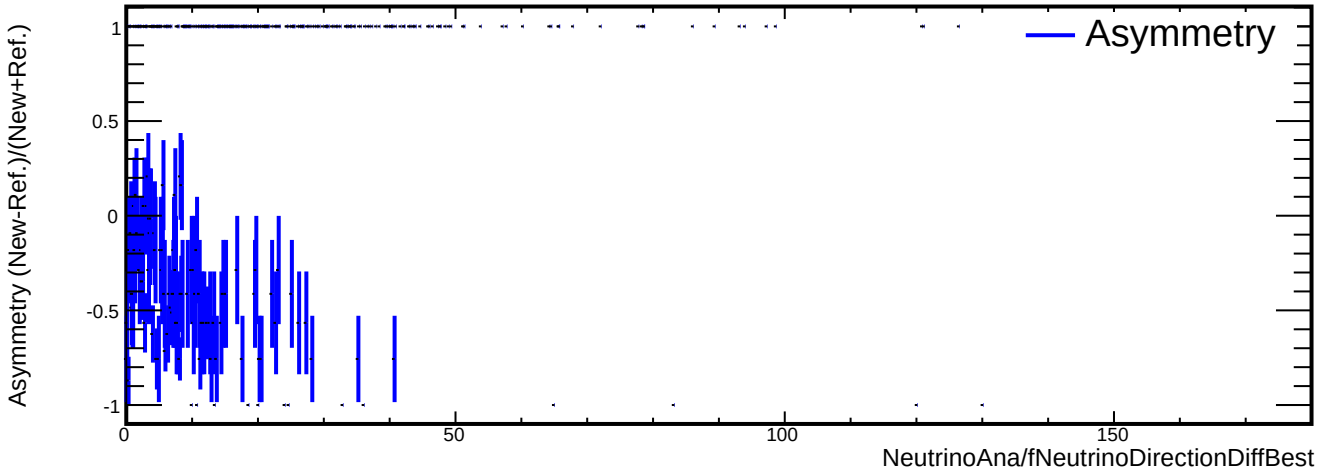

KS 7.54257e-05, chi2 6.17613e-15
2012-06-11
2012-06-12
NeutrinoAna/fNeutrinoEnuDiffLeptonBest
Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
NeutrinoAna/fNeutrinoEnuDiffLeptonBest

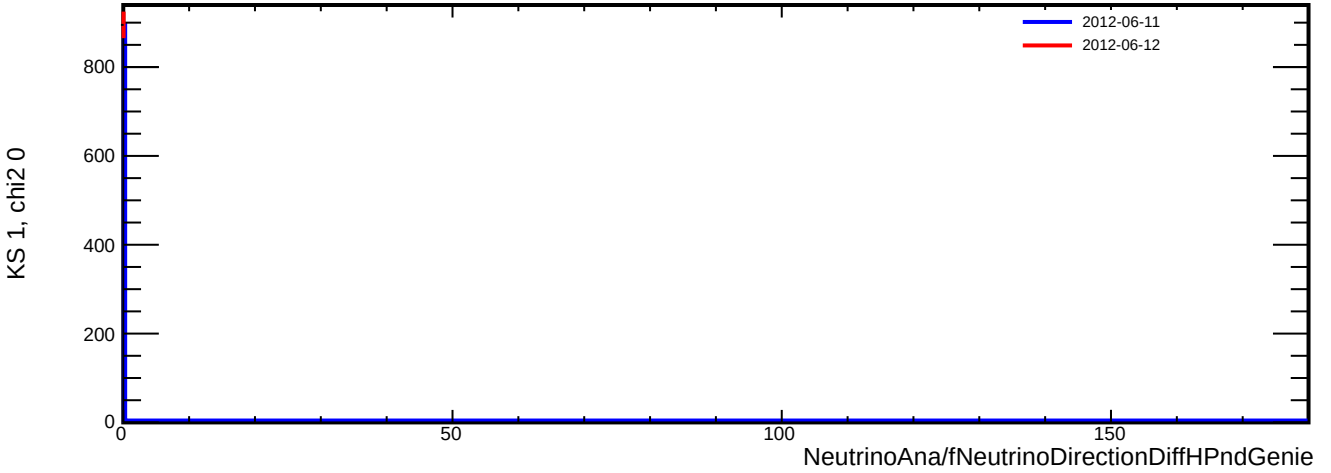

KS 0.000420252, chi2 5.68328e-17
150
100
50
0
-0.4
-0.2
0
0.2
0.4
NeutrinoAna/fNeutrinoEnuDiffProtonBest
2012-06-11
2012-06-12

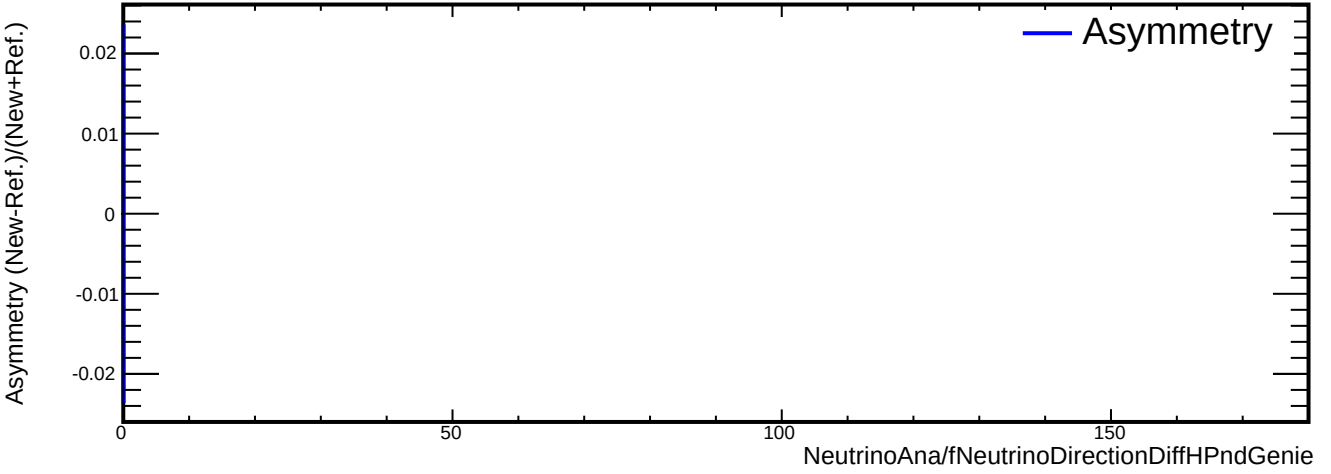

Asymmetry (New-Ref.)/(New+Ref.)
1
0.5
0
-0.5
-1
-0.4
-0.2
0
0.2
0.4
NeutrinoAna/fNeutrinoEnuDiffProtonBest
Asymmetry

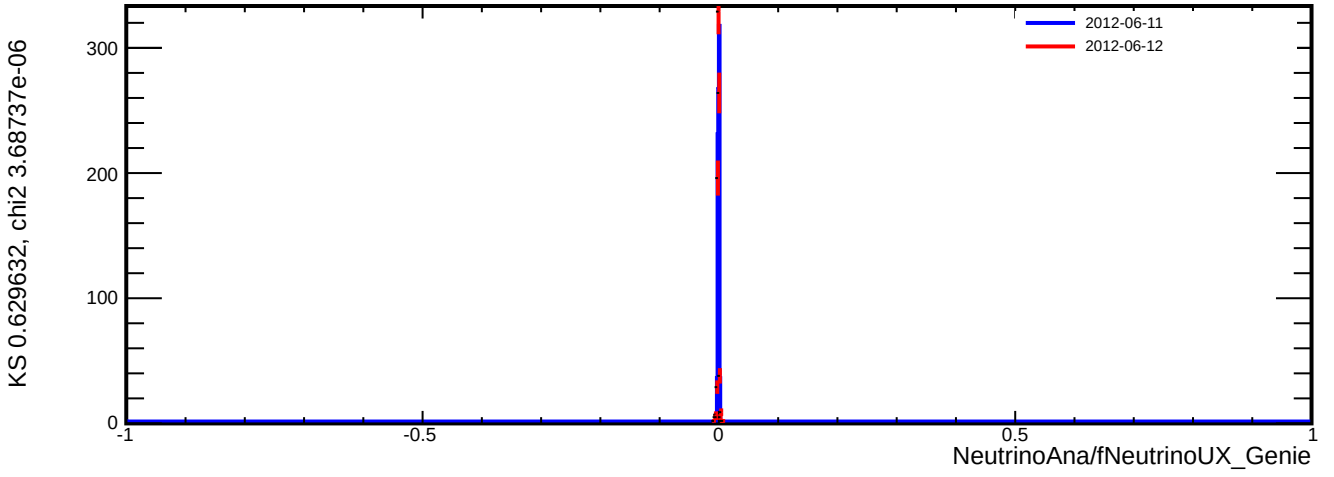

KS 4.45142e-05, chi2 6.56859e-19
2012-06-11
2012-06-12
NeutrinoAna/fNeutrinoEnuDiffBothBest
Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
NeutrinoAna/fNeutrinoEnuDiffBothBest

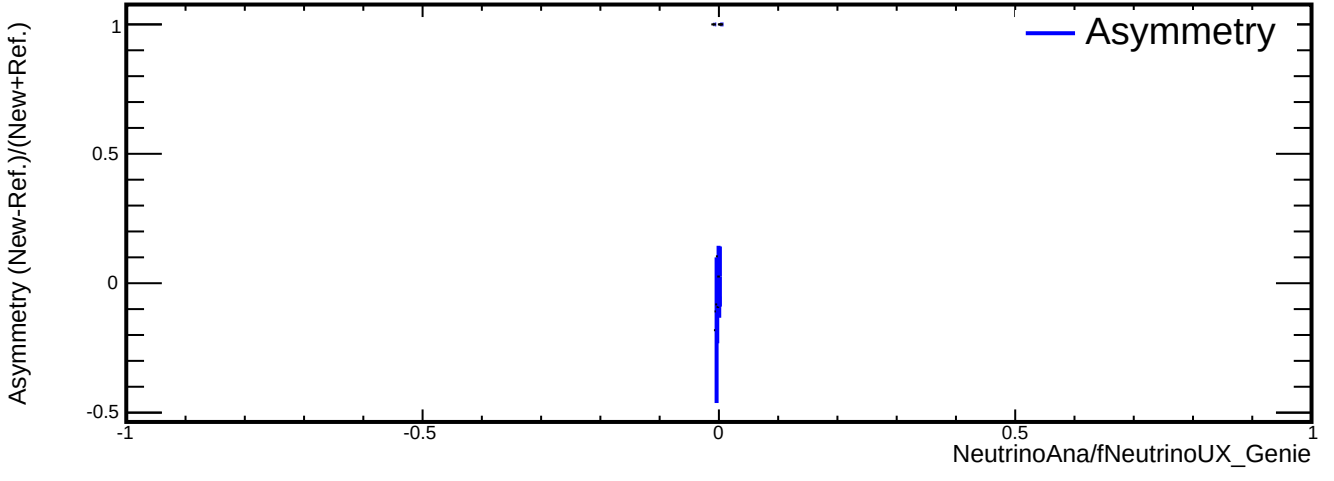

KS 0.00527242, chi2 2.40574e-54
2012-06-11
2012-06-12
0
10
20
30
0
50
100
150
NeutrinoAna/fNeutrinoDirectionDiffBest

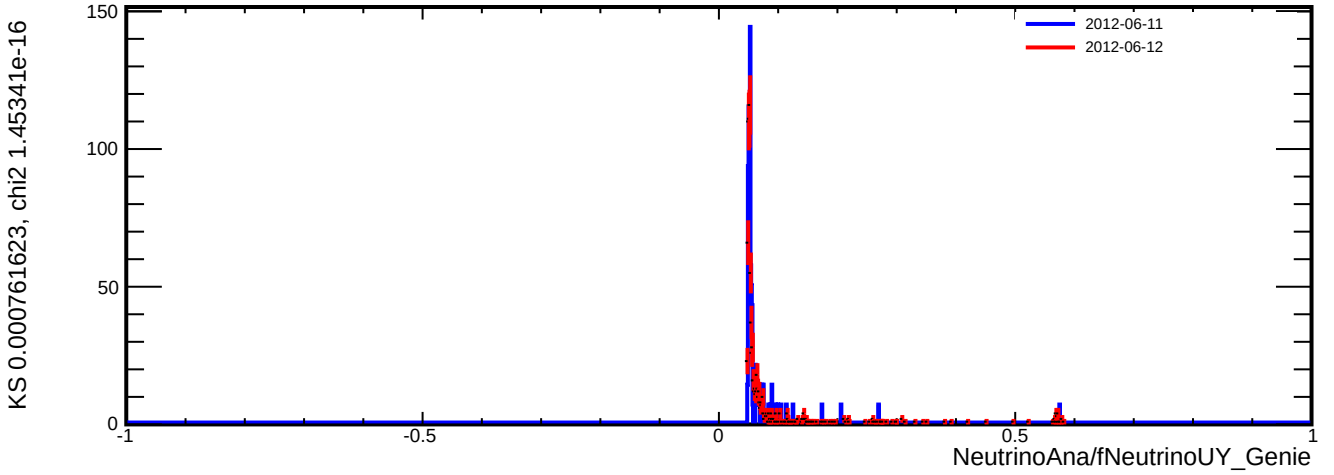

Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
1
0.5
0
-0.5
-1
0
50
100
150
NeutrinoAna/fNeutrinoDirectionDiffBest

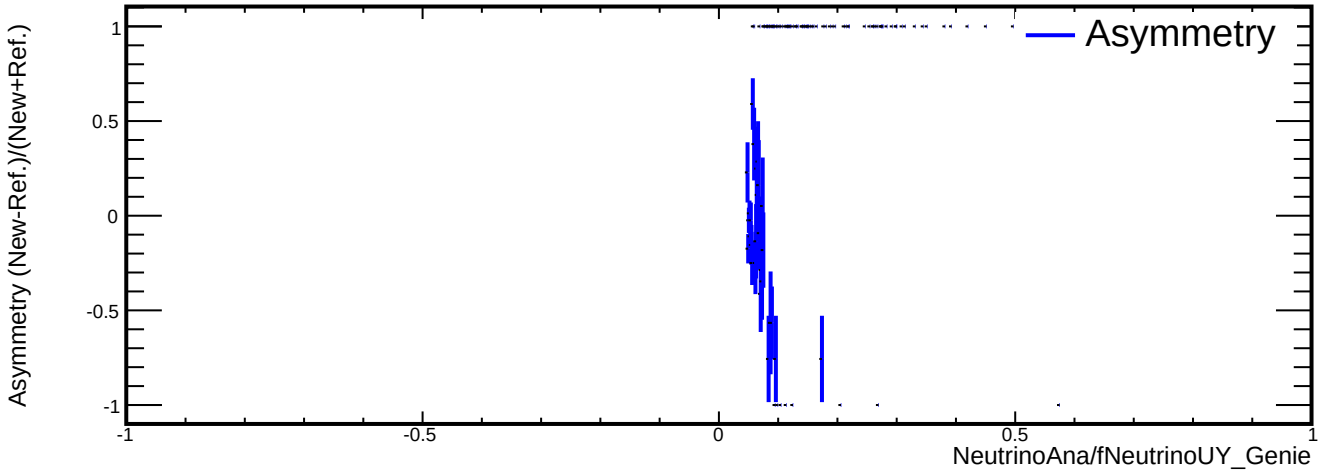

2012-06-11
2012-06-12
KS 1, chi2 0
800
600
400
200
0
0
50
100
150
NeutrinoAna/fNeutrinoDirectionDiffHPndGenie

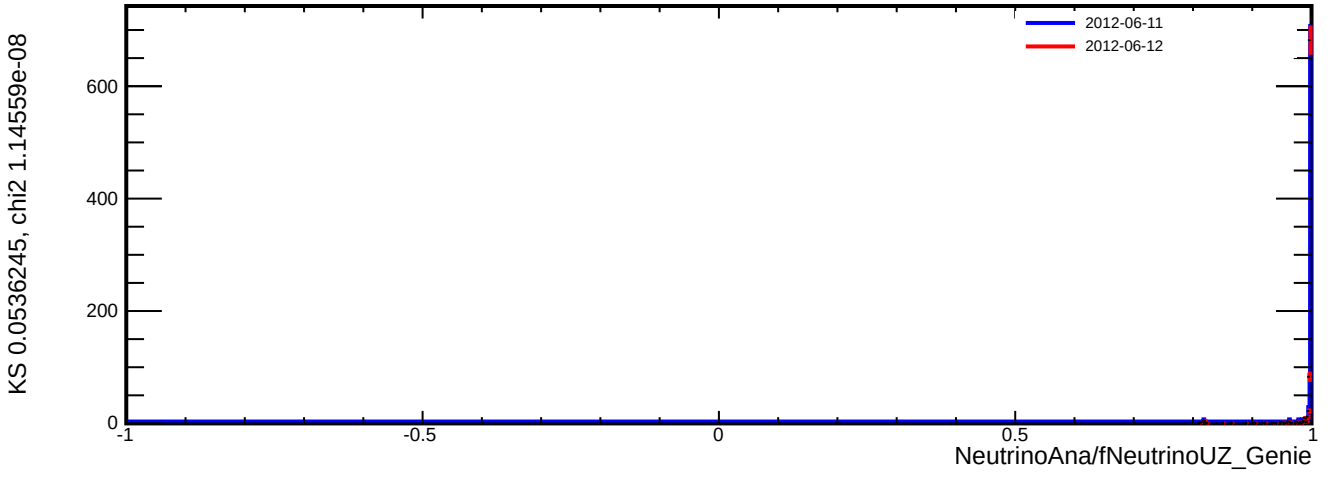

Asymmetry
Asymmetry (New-Ref.)/(New+Ref.)
0.02
0.01
0
-0.01
-0.02
0
50
100
150
NeutrinoAna/fNeutrinoDirectionDiffHPndGenie

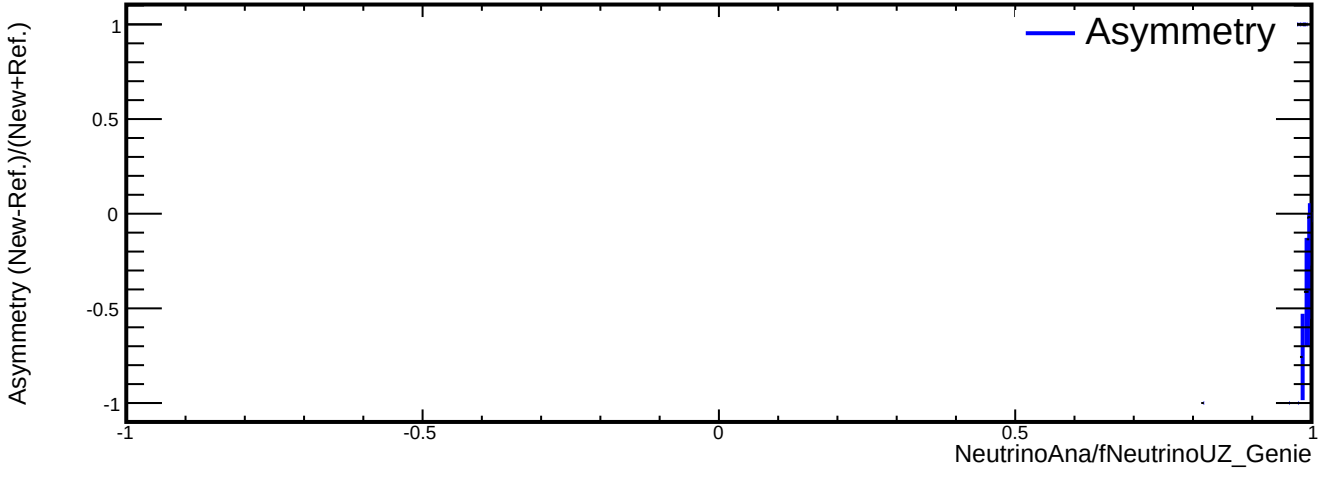

KS 0.629632, chi2 3.68737e-06
300
200
100
0
-1
-0.5
0
0.5
1
NeutrinoAna/fNeutrinoUX_Genie
2012-06-11
2012-06-12

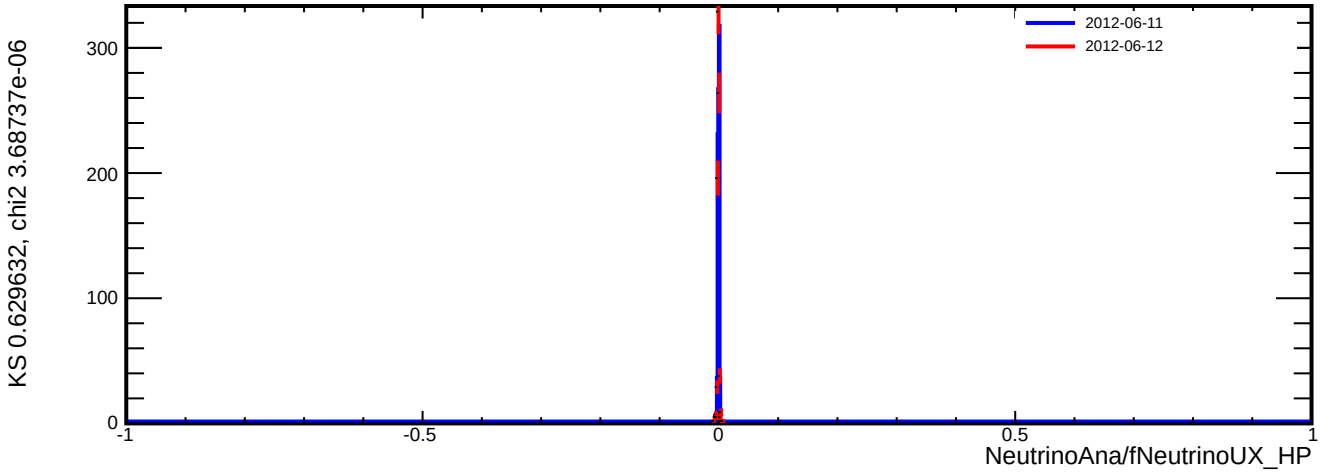

Asymmetry (New-Ref.)/(New+Ref.)
1
0.5
0
-0.5
-1
-0.5
0
0.5
1
NeutrinoAna/fNeutrinoUX_Genie
Asymmetry

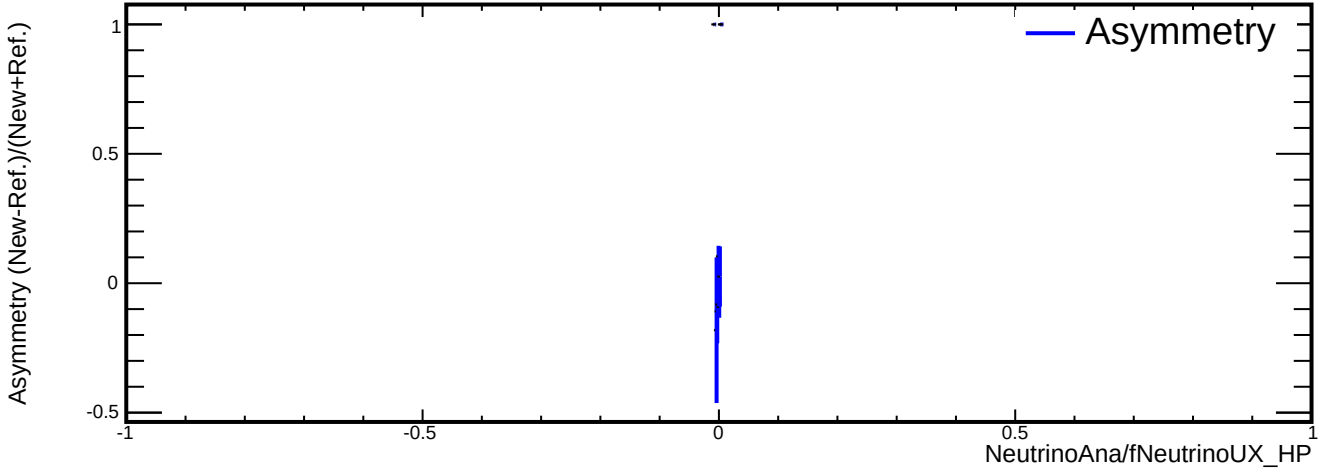

KS 0.000761623, chi2 1.45341e-16
150
100
50
0
-1
-0.5
0
0.5
1
NeutrinoAna/fNeutrinoUY_Genie
2012-06-11
2012-06-12

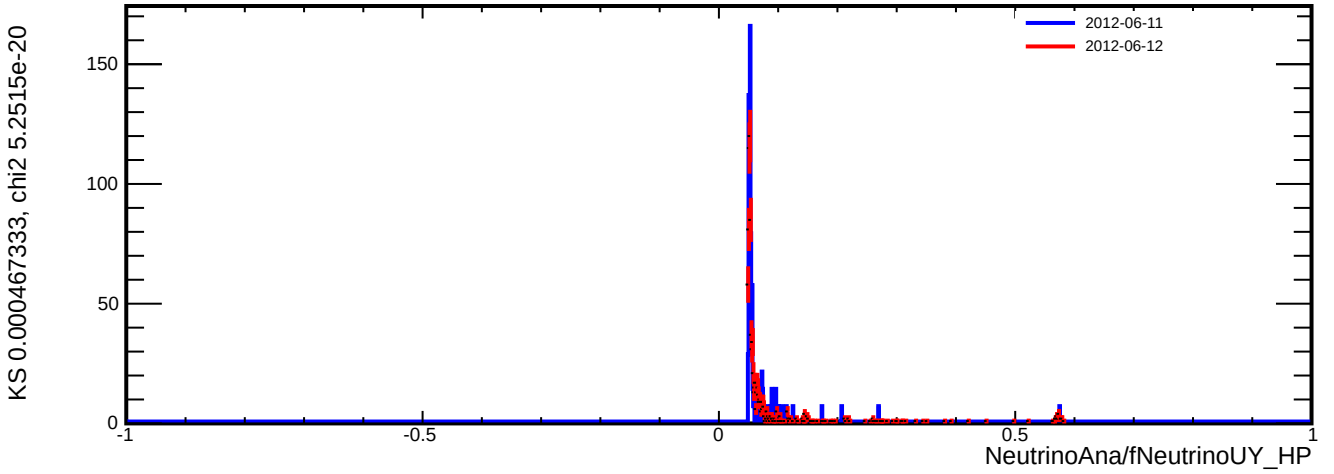

Asymmetry (New-Ref.)/(New+Ref.)
1
0.5
0
-0.5
-1
-1
-0.5
0
0.5
1
NeutrinoAna/fNeutrinoUY_Genie
Asymmetry

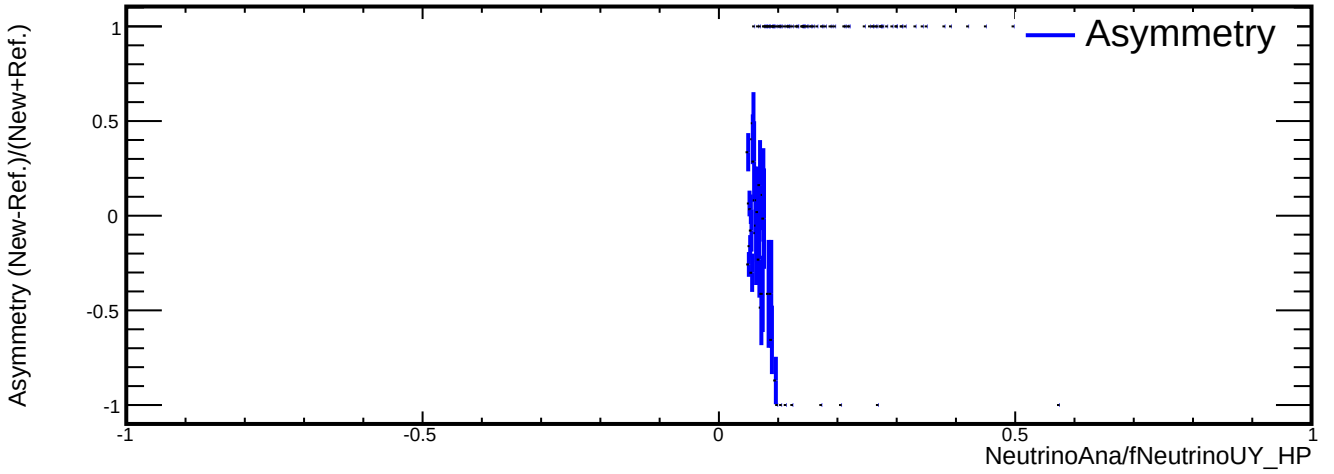

KS 0.0536245, chi2 1.14559e-08
2012-06-11
2012-06-12
600
400
200
0
-1
-0.5
0
0.5
1
NeutrinoAna/fNeutrinoUZ_Genie

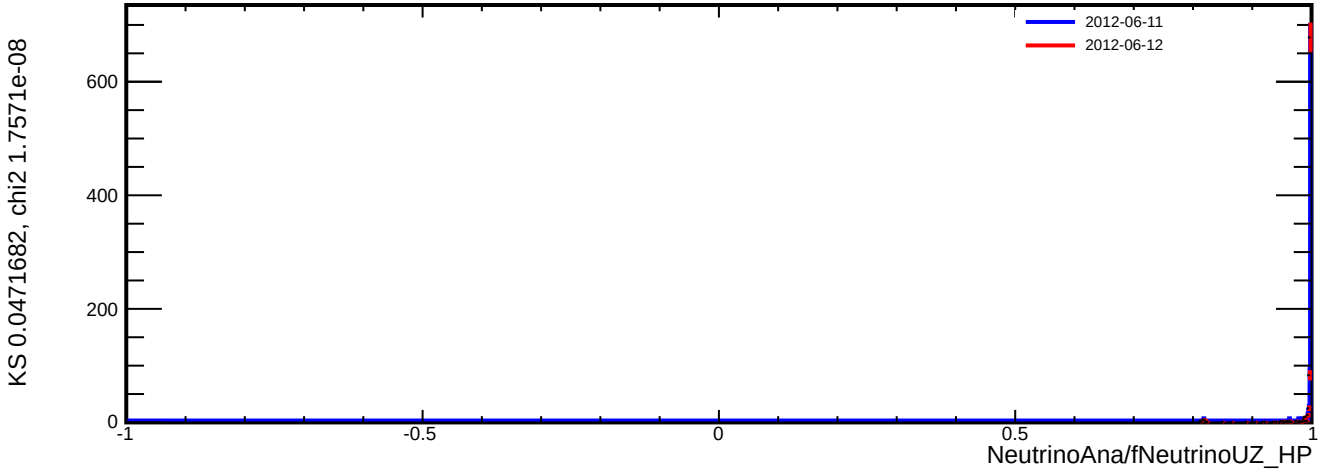

Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
1
0.5
0
-0.5
-1
-1
-0.5
0
0.5
1
NeutrinoAna/fNeutrinoUZ_Genie

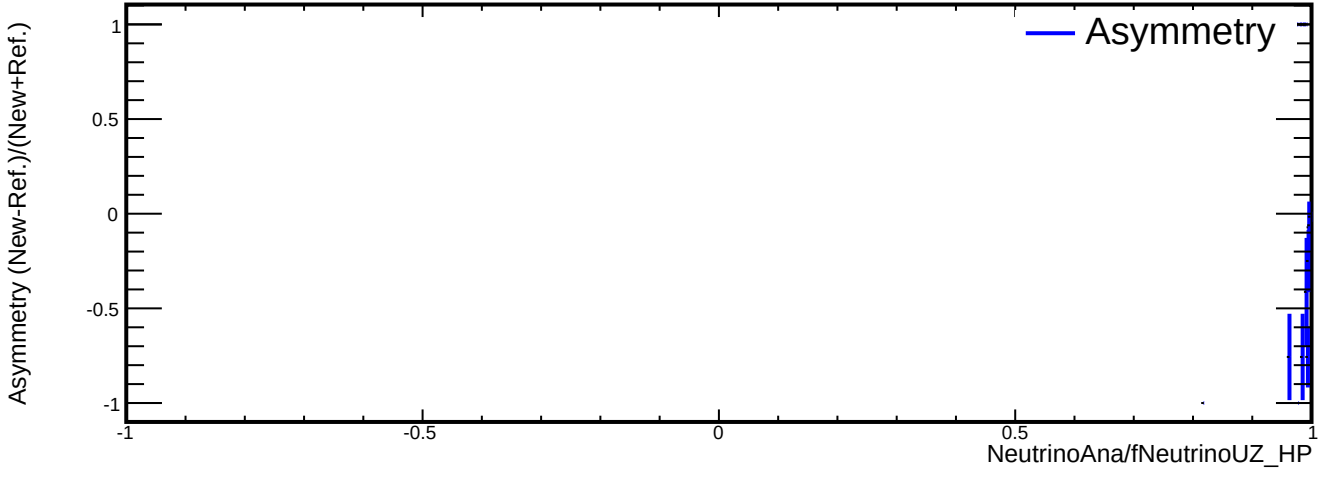

KS 0.629632, chi2 3.68737e-06
300
200
100
0
-1
-0.5
0
0.5
1
NeutrinoAna/fNeutrinoUX_HP
2012-06-11
2012-06-12

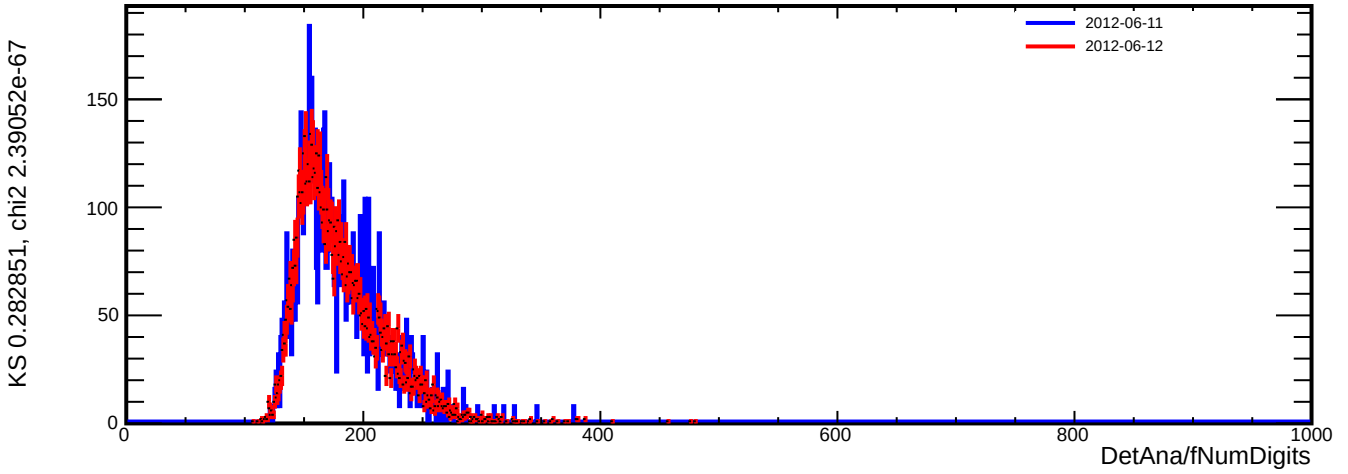

Asymmetry (New-Ref.)/(New+Ref.)
1
0.5
0
-0.5
-1
-0.5
0
0.5
1
NeutrinoAna/fNeutrinoUX_HP
Asymmetry

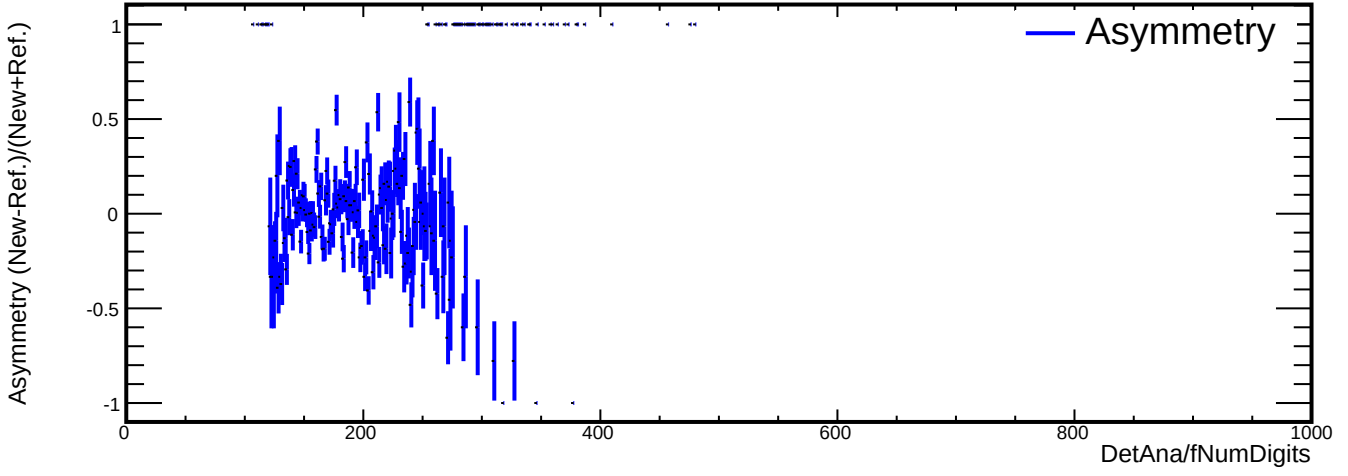

KS 0.000467333, chi2 5.2515e-20
2012-06-11
2012-06-12
150
100
50
0
-1
-0.5
0
0.5
1
NeutrinoAna/fNeutrinoUY_HP

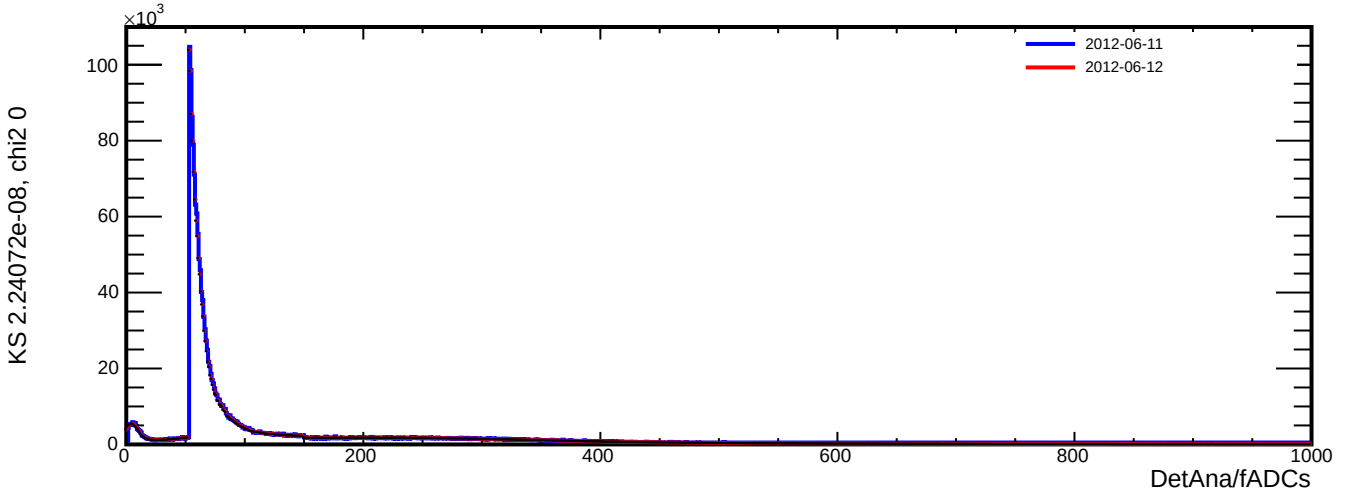

Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
1
0.5
0
-0.5
-1
-1
-0.5
0
0.5
1
NeutrinoAna/fNeutrinoUY_HP

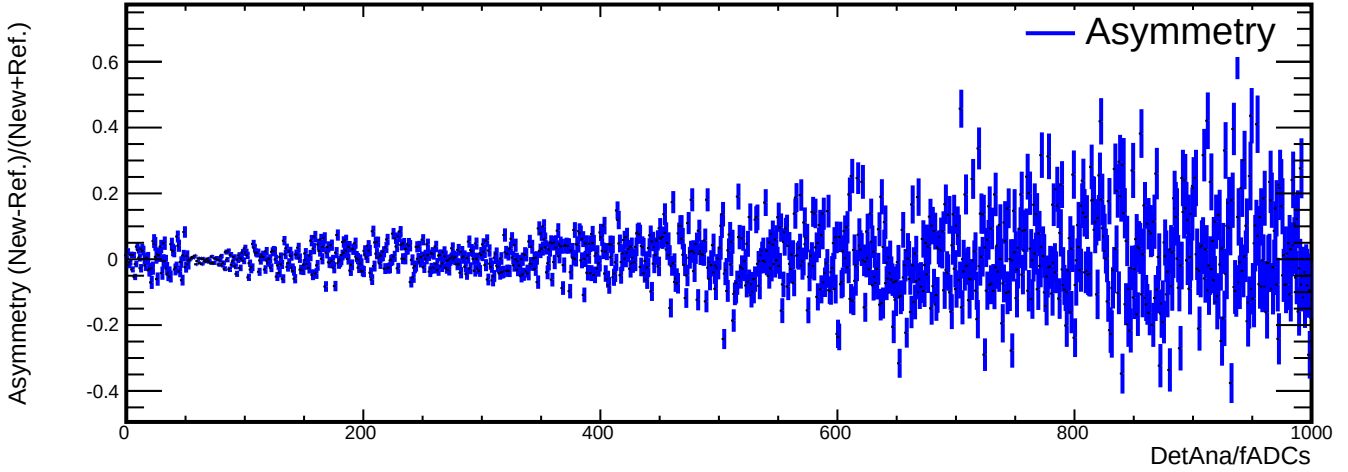

KS 0.0471682, chi2 1.7571e-08
2012-06-11
2012-06-12
600
400
200
0
-1
-0.5
0
0.5
1
NeutrinoAna/fNeutrinoUZ_HP

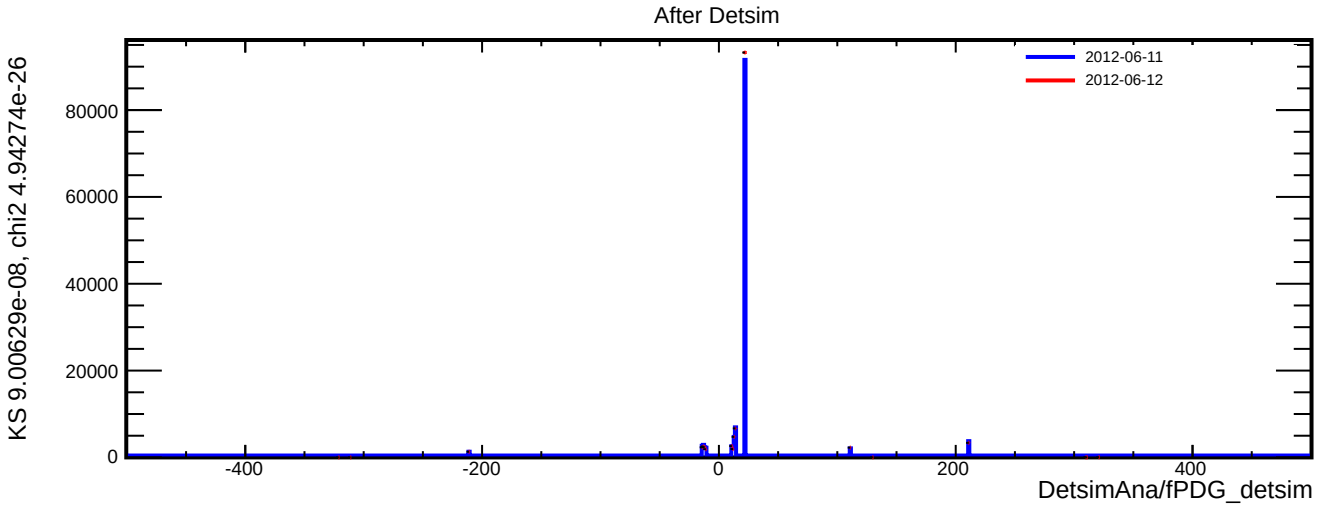

Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
1
0.5
0
-0.5
-1
-1
-0.5
0
0.5
1
NeutrinoAna/fNeutrinoUZ_HP

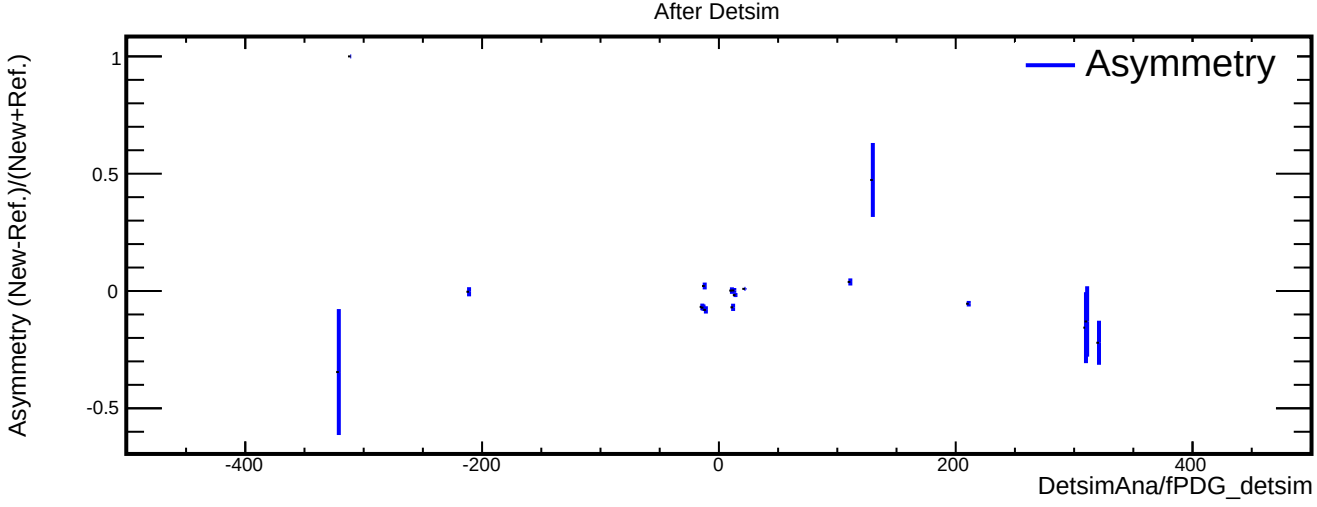

KS 0.282851, chi2 2.39052e-67
2012-06-11
2012-06-12
150
100
50
0
0
200
400
600
800
1000
DetAna/fNumDigits

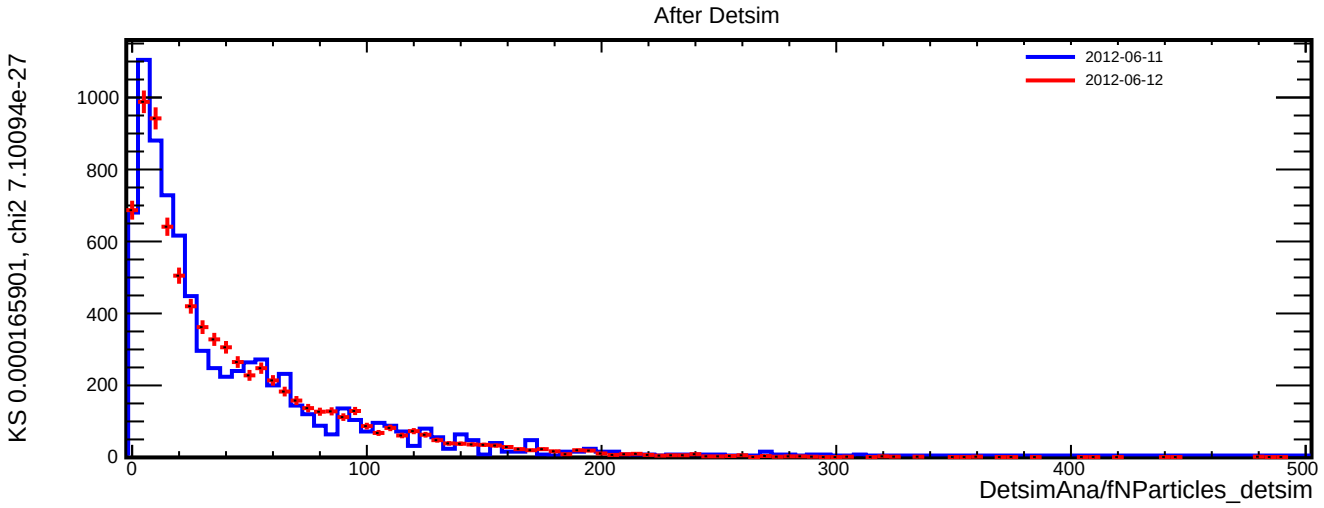

Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
1
0.5
0
-0.5
-1
0
200
400
600
800
1000
DetAna/fNumDigits

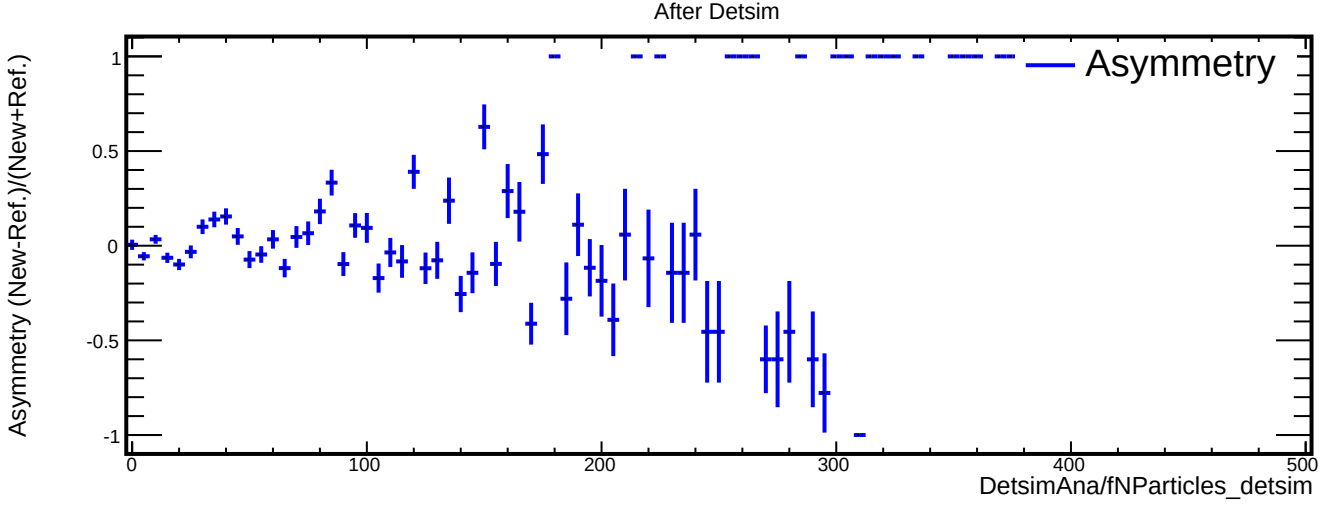

×10^3
100
80
60
40
20
0
0
200
400
600
800
1000
KS 2.24072e-08, chi2 0
DetAna/fADCs
2012-06-11
2012-06-12

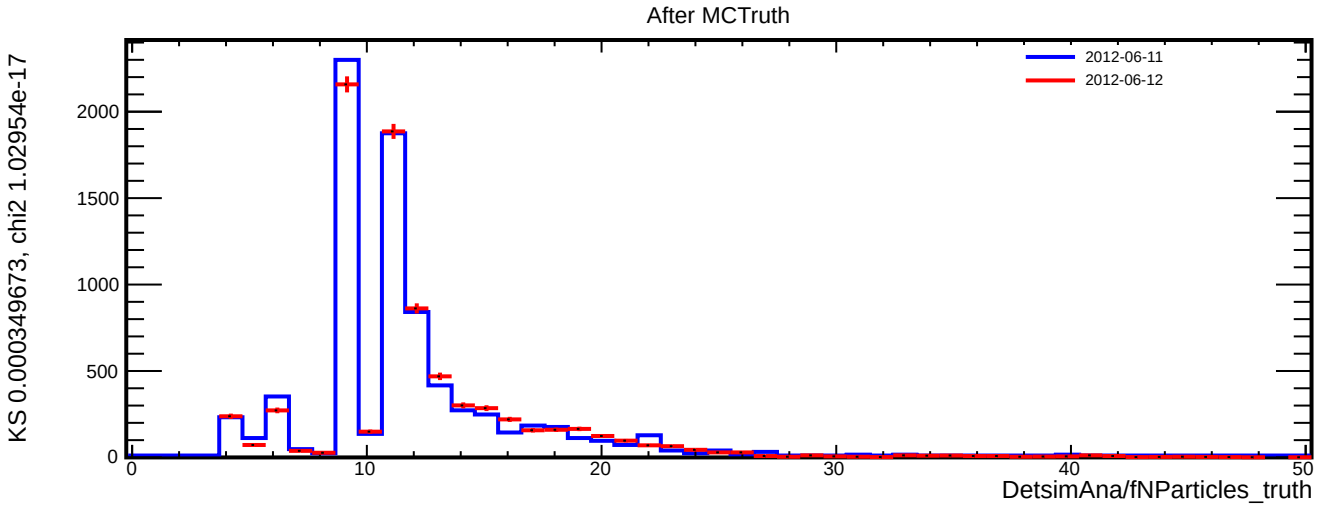

0.6
0.4
0.2
0
-0.2
-0.4
0
200
400
600
800
1000
Asymmetry (New-Ref.)/(New+Ref.)
DetAna/fADCs
Asymmetry

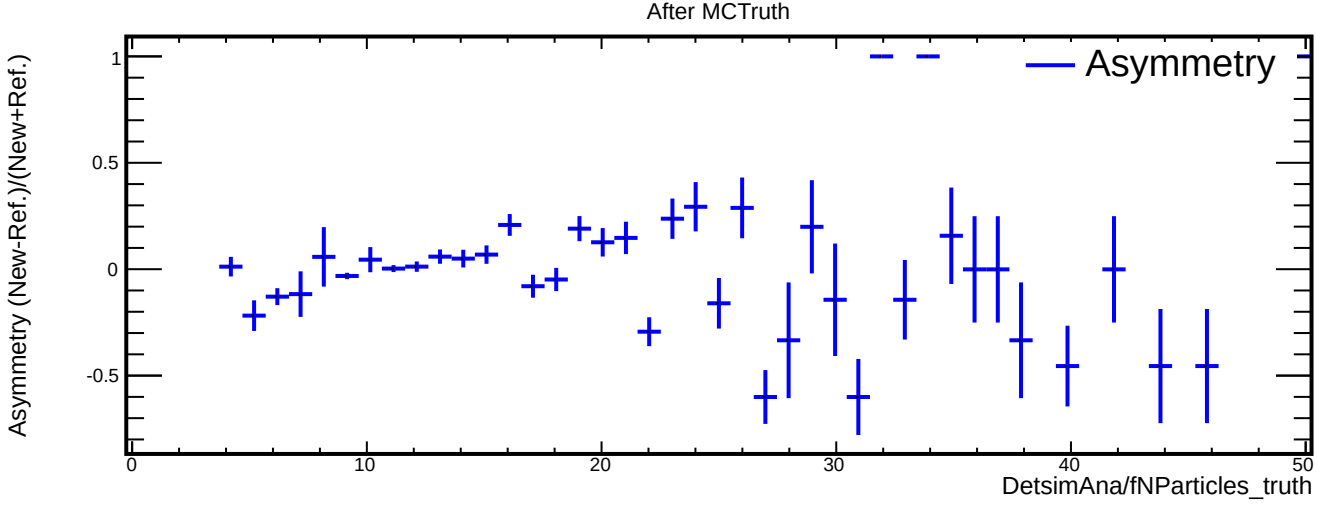

After Detsim
KS 9.00629e-08, chi2 4.94274e-26
2012-06-11
2012-06-12
80000
60000
40000
20000
0
-400
-200
0
200
400
DetsimAna/fPDG_detsim

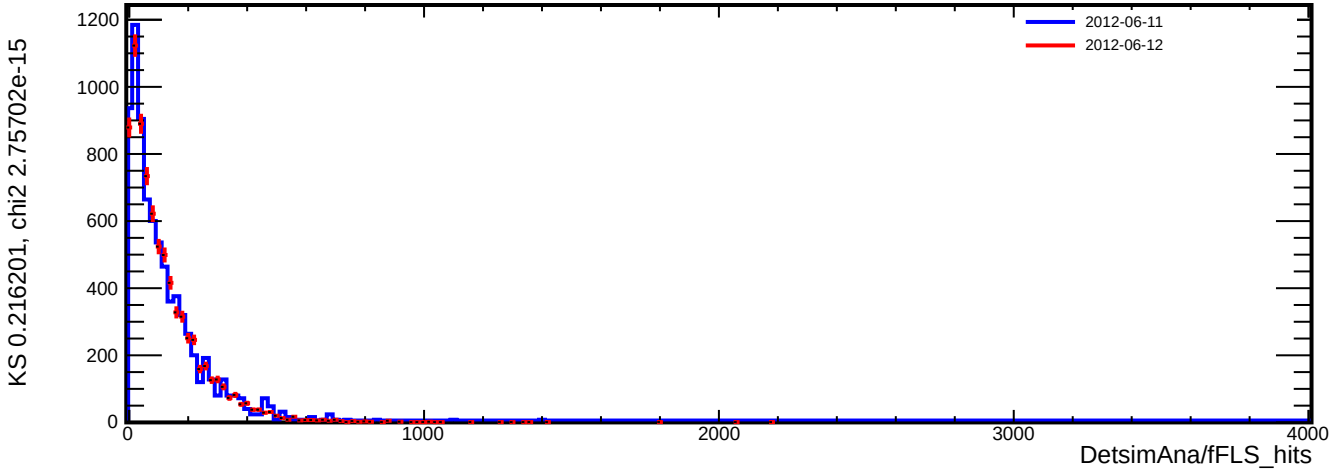

After Detsim
Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
1
0.5
0
-0.5
-400
-200
0
200
400
DetsimAna/fPDG_detsim

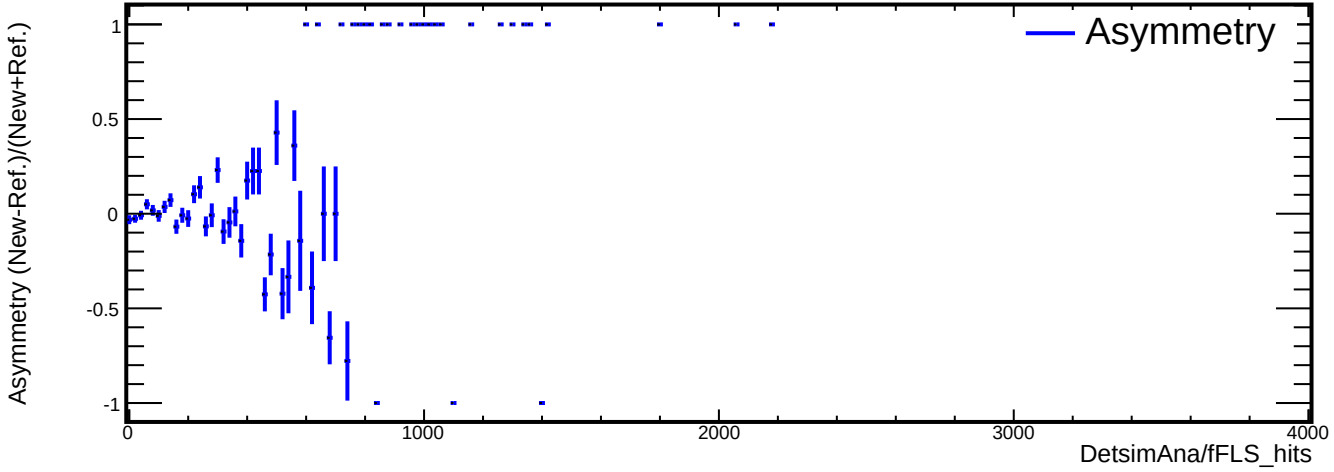

After Detsim
KS 0.000165901, chi2 7.10094e-27
2012-06-11
2012-06-12
1000
800
600
400
200
0
0
100
200
300
400
500
DetsimAna/fNParticles_detsim

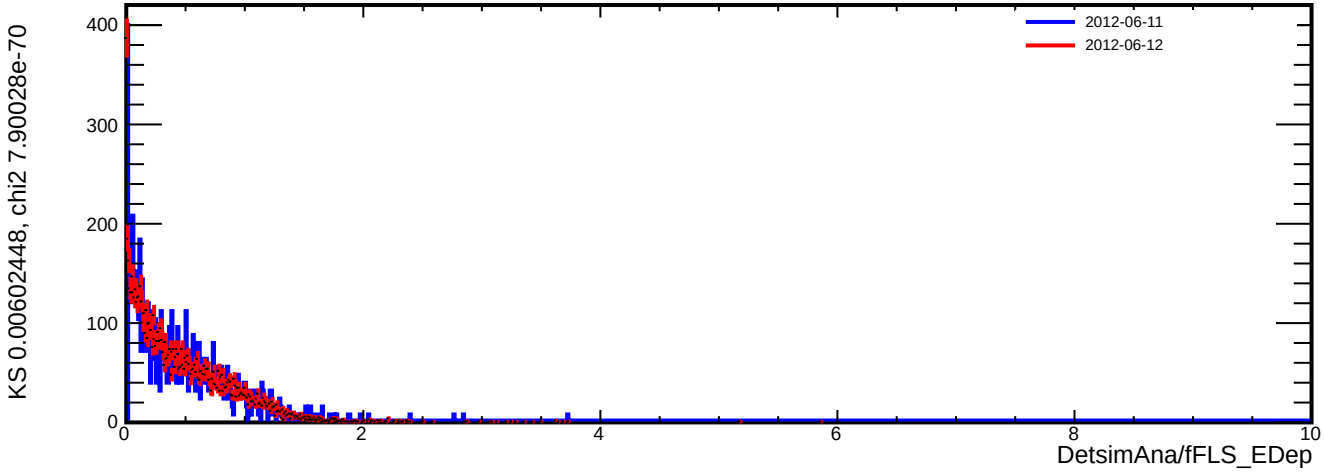

After Detsim
Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
1
0.5
0
-0.5
-1
0
100
200
300
400
500
DetsimAna/fNParticles_detsim

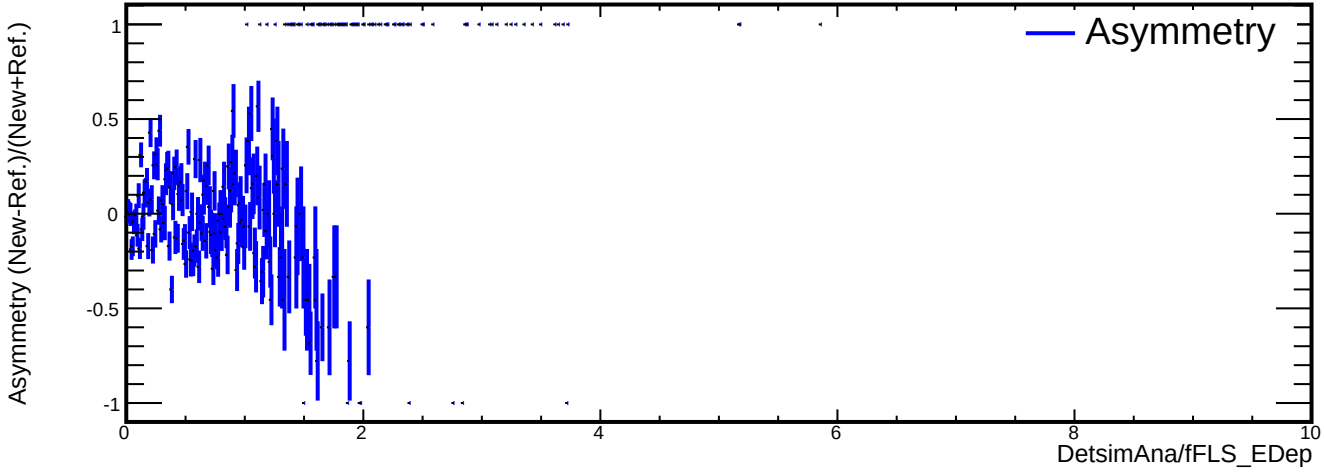

After MCTruth
KS 0.000349673, chi2 1.02954e-17
2012-06-11
2012-06-12
0
500
1000
1500
2000
0
10
20
30
40
50
DetsimAna/fNParticles_truth

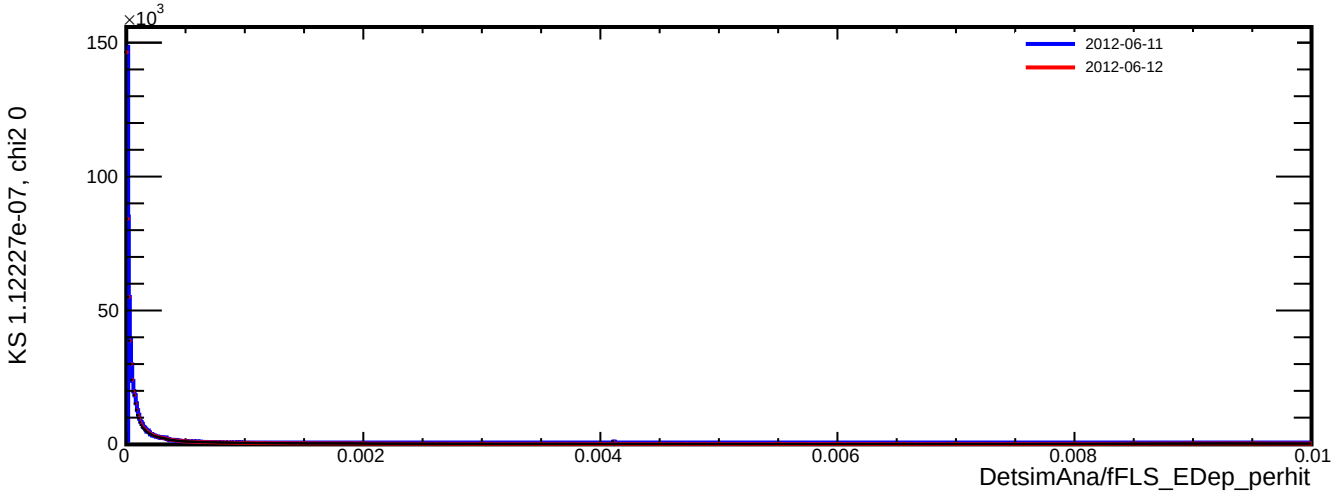

After MCTruth
Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
1
0.5
0
-0.5
0
10
20
30
40
50
DetsimAna/fNParticles_truth

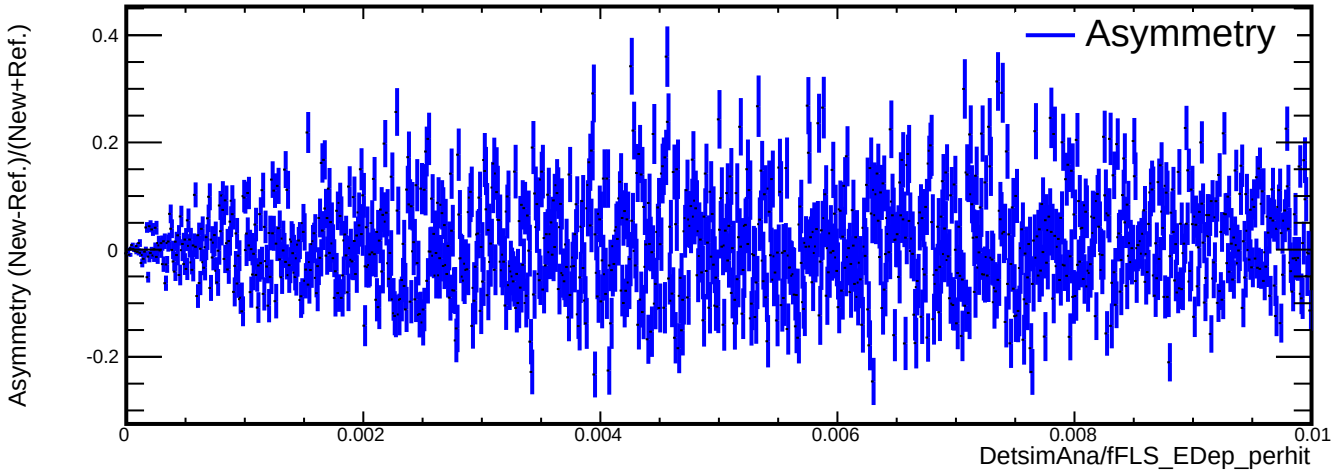

KS 0.216201, chi2 2.75702e-15
2012-06-11
2012-06-12
DetsimAna/fFLS_hits

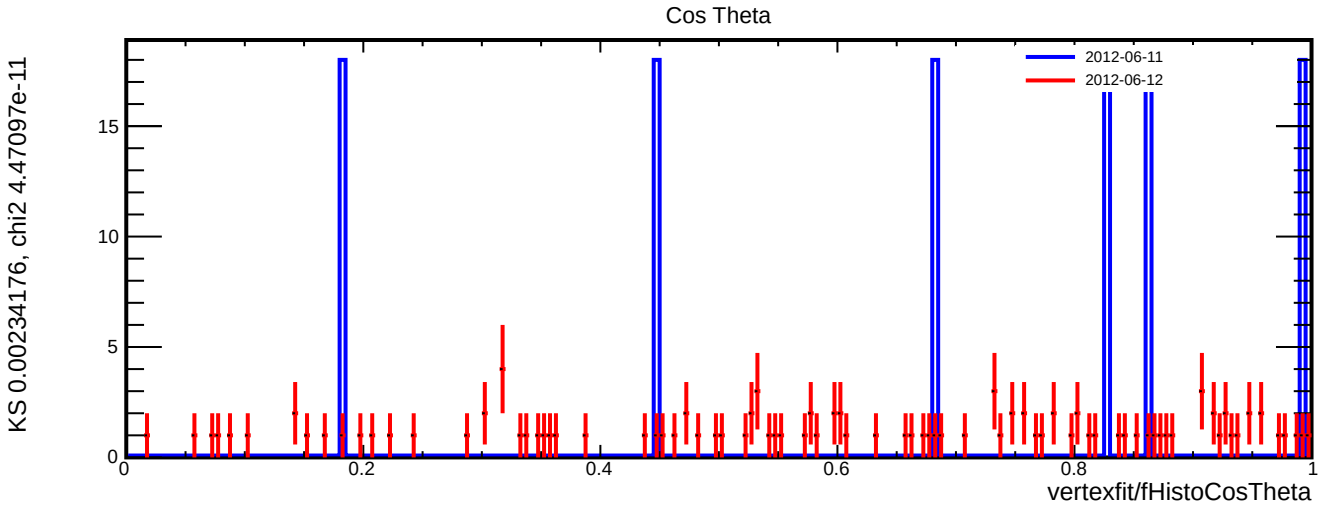

Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
DetsimAna/fFLS_hits

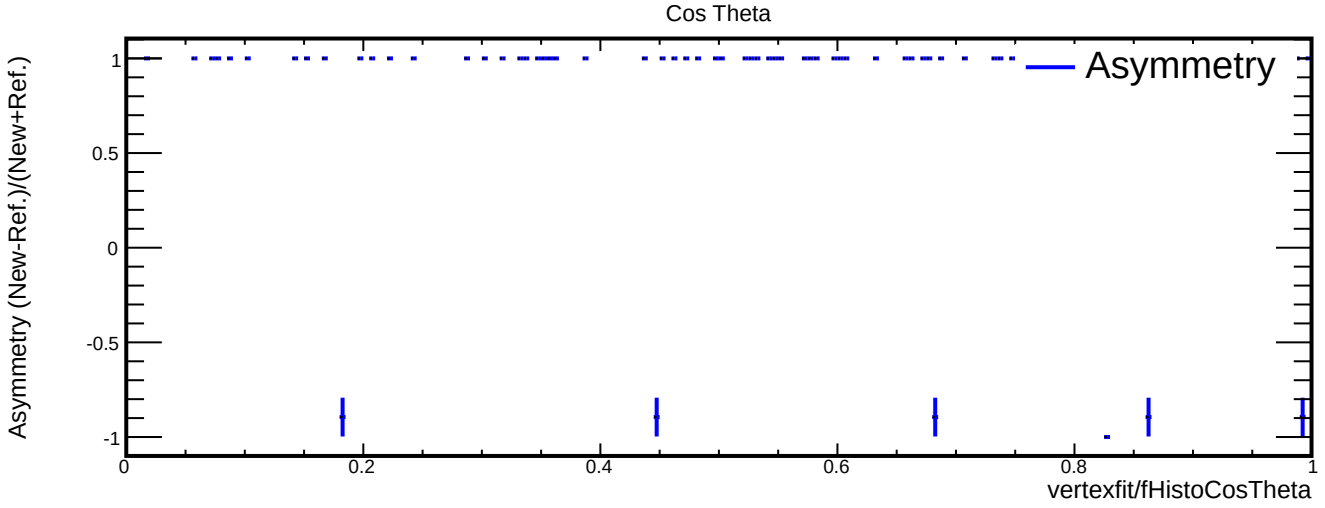

KS 0.00602448, chi2 7.90028e-70
400
300
200
100
0
0
2
4
6
8
10
DetsimAna/fFLS_EDep
2012-06-11
2012-06-12

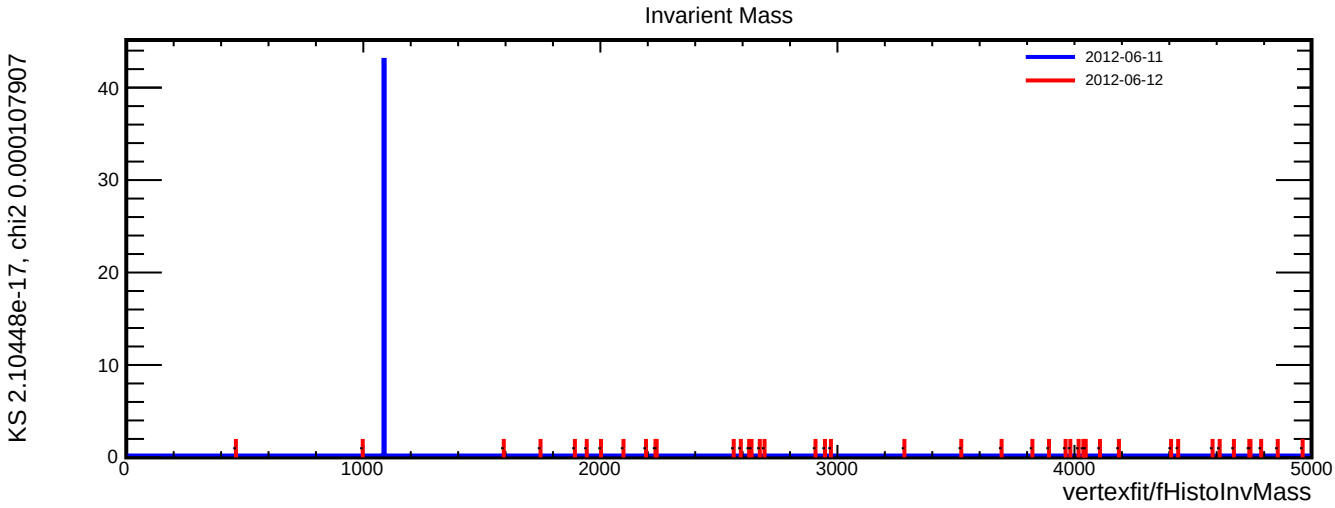

Asymmetry (New-Ref.)/(New+Ref.)
1
0.5
0
-0.5
-1
0
2
4
6
8
10
DetsimAna/fFLS_EDep
Asymmetry

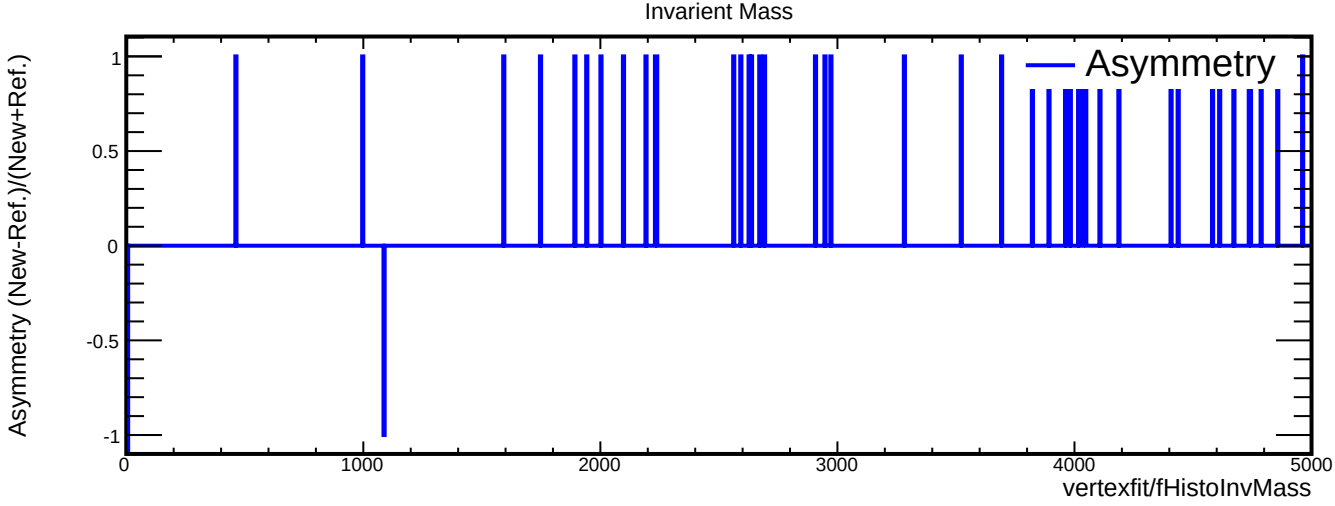

×10^3
150
100
50
0
0
0.002
0.004
0.006
0.008
0.01
KS 1.12227e-07, chi2 0
DetsimAna/fFLS_EDep_perhit
2012-06-11
2012-06-12

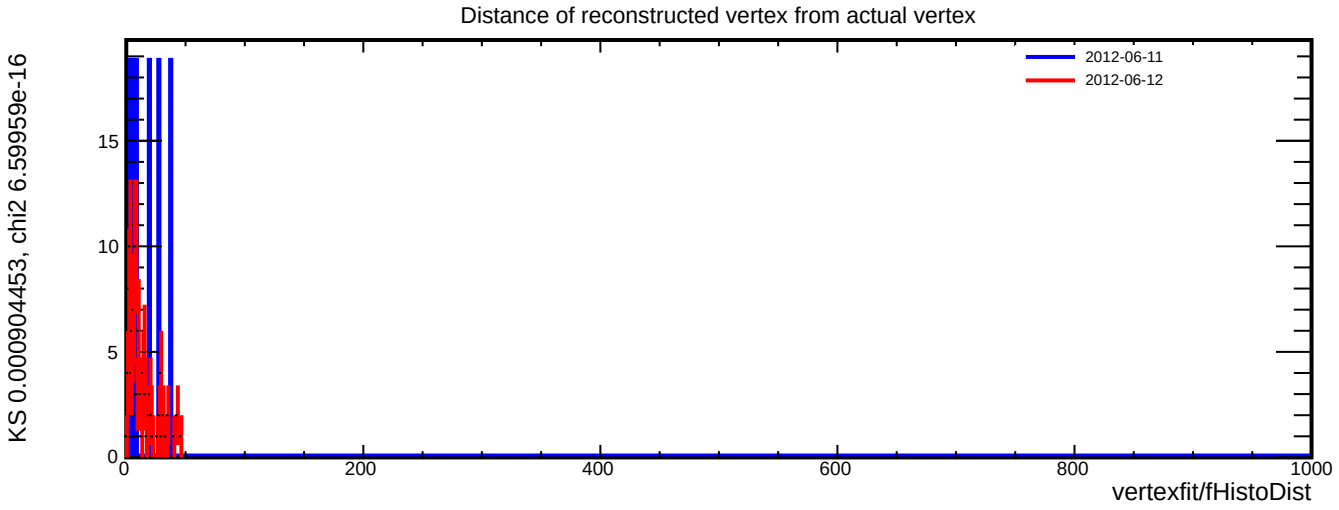

0.4
0.2
0
-0.2
0
0.002
0.004
0.006
0.008
0.01
Asymmetry (New-Ref.)/(New+Ref.)
DetsimAna/fFLS_EDep_perhit
Asymmetry

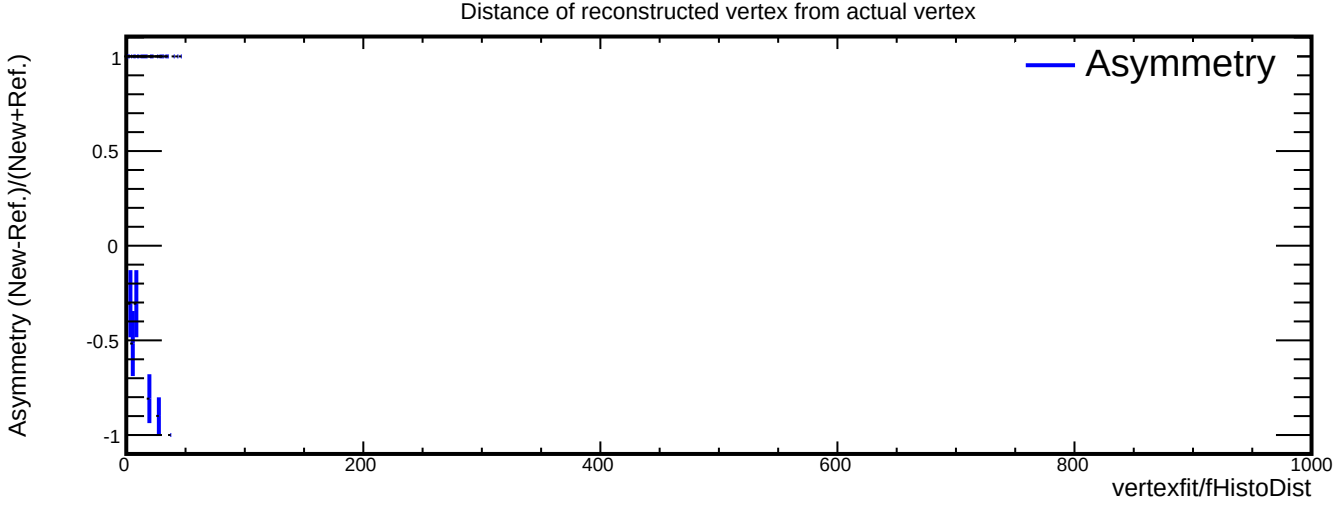

Cos Theta
KS 0.00234176, chi2 4.47097e-11
2012-06-11
2012-06-12
0
5
10
15
0
0.2
0.4
0.6
0.8
1
vertexfit/fHistoCosTheta

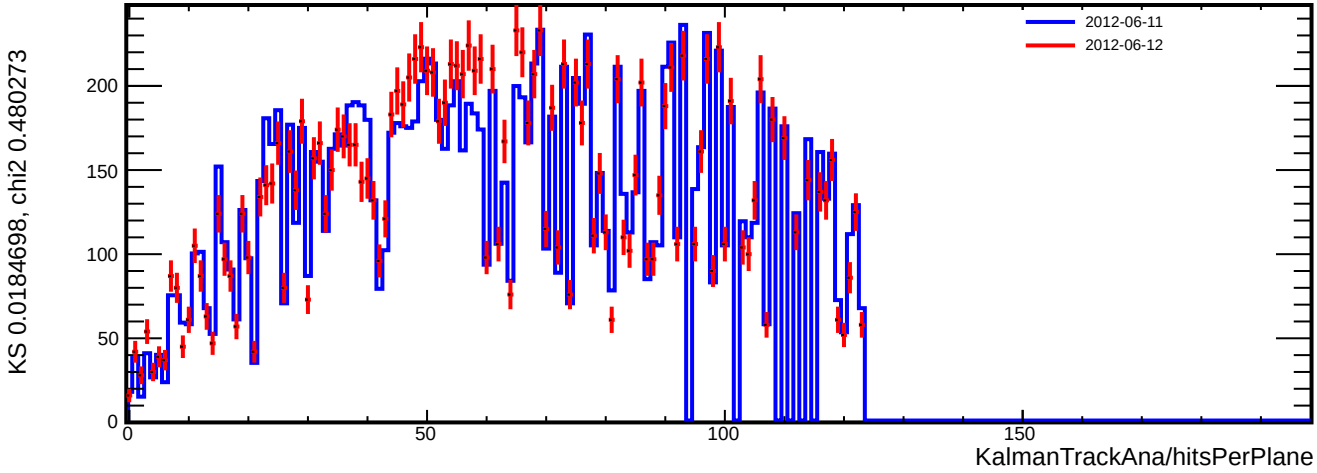

Cos Theta
Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
1
0.5
0
-0.5
-1
0
0.2
0.4
0.6
0.8
1
vertexfit/fHistoCosTheta

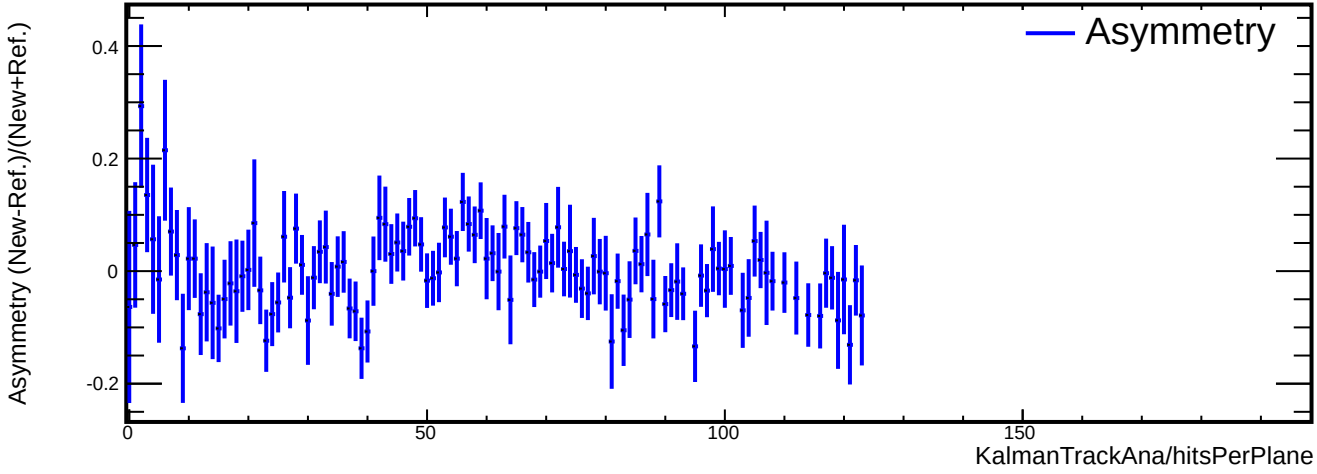

Invarient Mass
KS 2.10448e-17, chi2 0.000107907
2012-06-11
2012-06-12
0
10
20
30
40
0
1000
2000
3000
4000
5000
vertexfit/fHistoInvMass

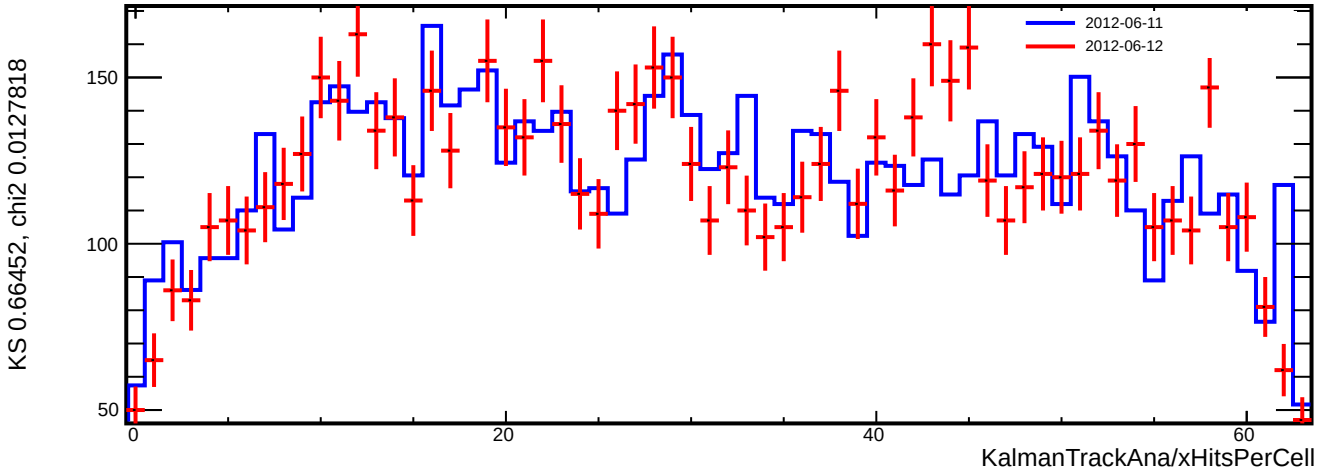

Invarient Mass
Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
1
0.5
0
-0.5
-1
0
1000
2000
3000
4000
5000
vertexfit/fHistoInvMass

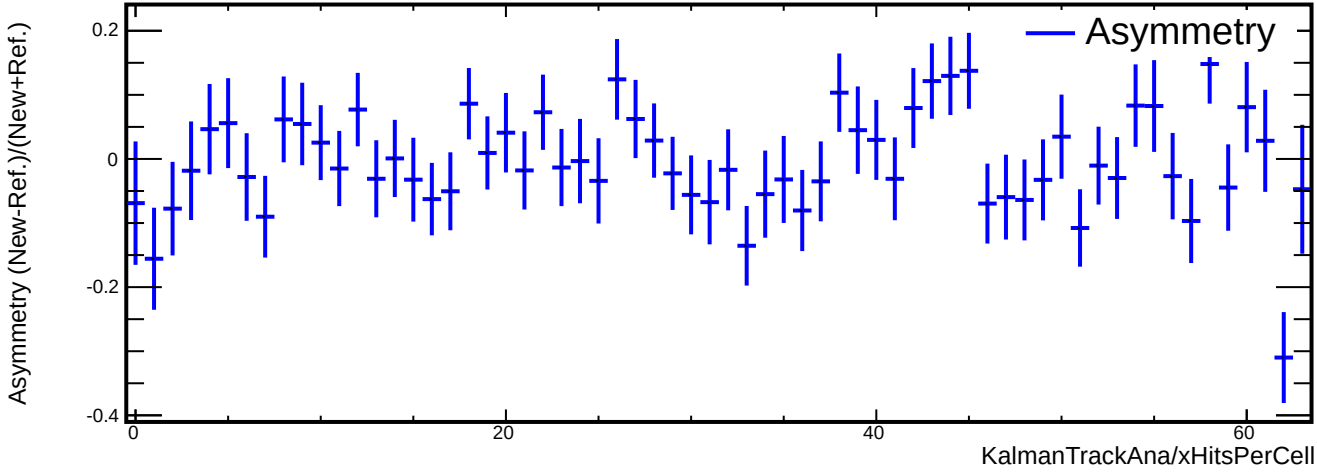

Distance of reconstructed vertex from actual vertex
KS 0.000904453, chi2 6.59959e-16
2012-06-11
2012-06-12
0
5
10
15
0
200
400
600
800
1000
vertexfit/fHistoDist

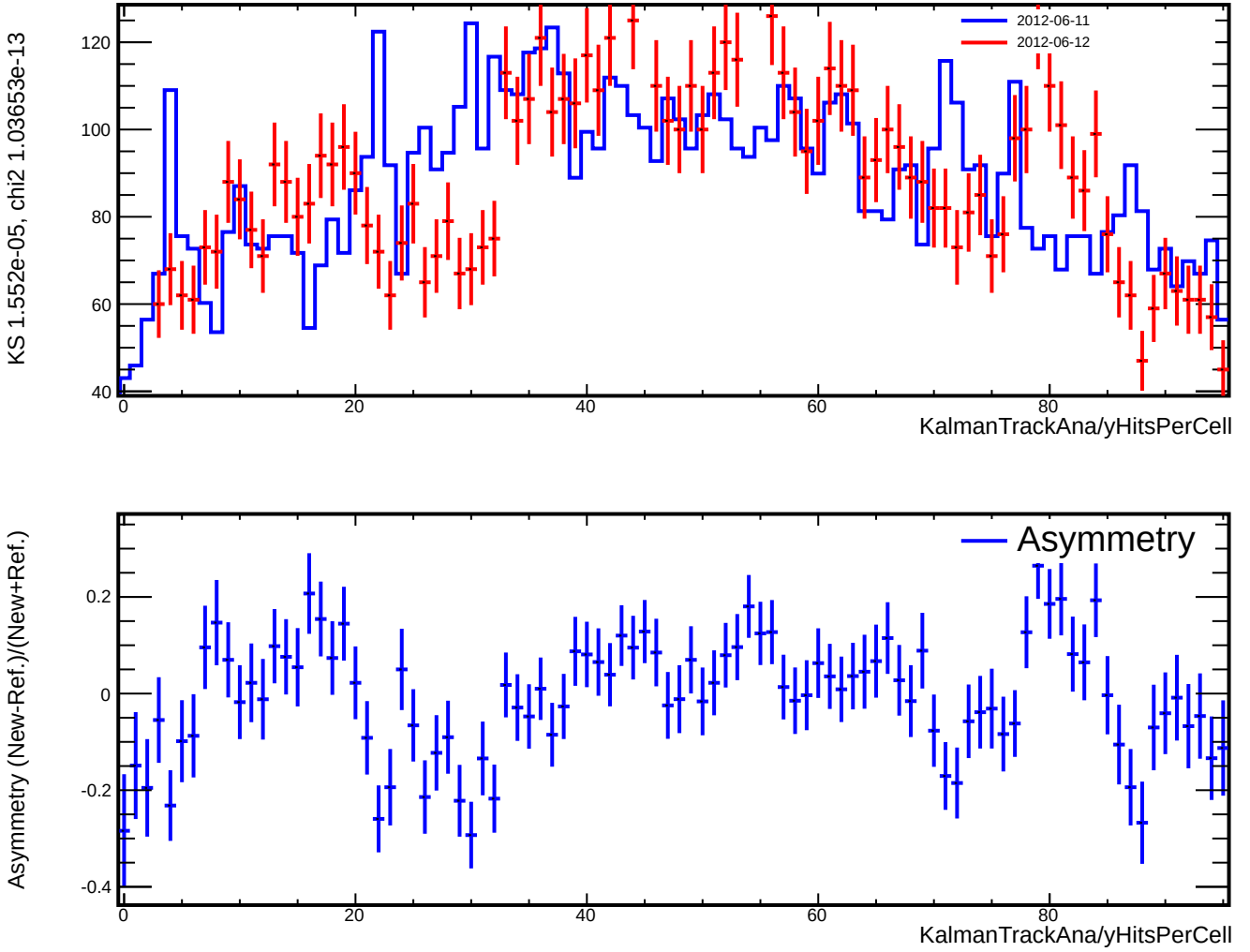

Distance of reconstructed vertex from actual vertex
Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
1
0.5
0
-0.5
-1
0
200
400
600
800
1000
vertexfit/fHistoDist

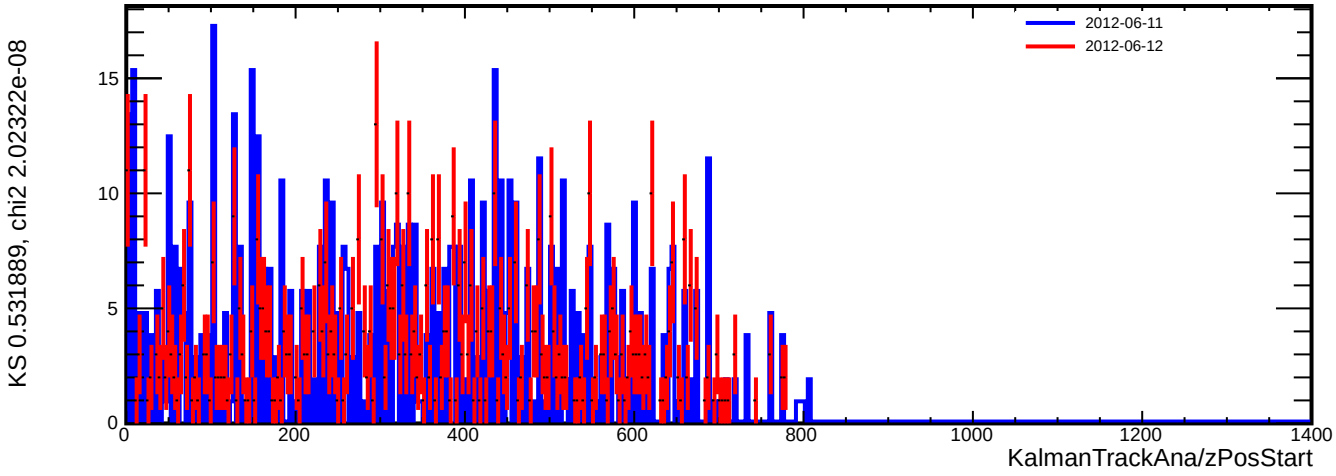

KS 0.0184698, chi2 0.480273
2012-06-11
2012-06-12
0
50
100
150
200
0
50
100
150
KalmanTrackAna/hitsPerPlane

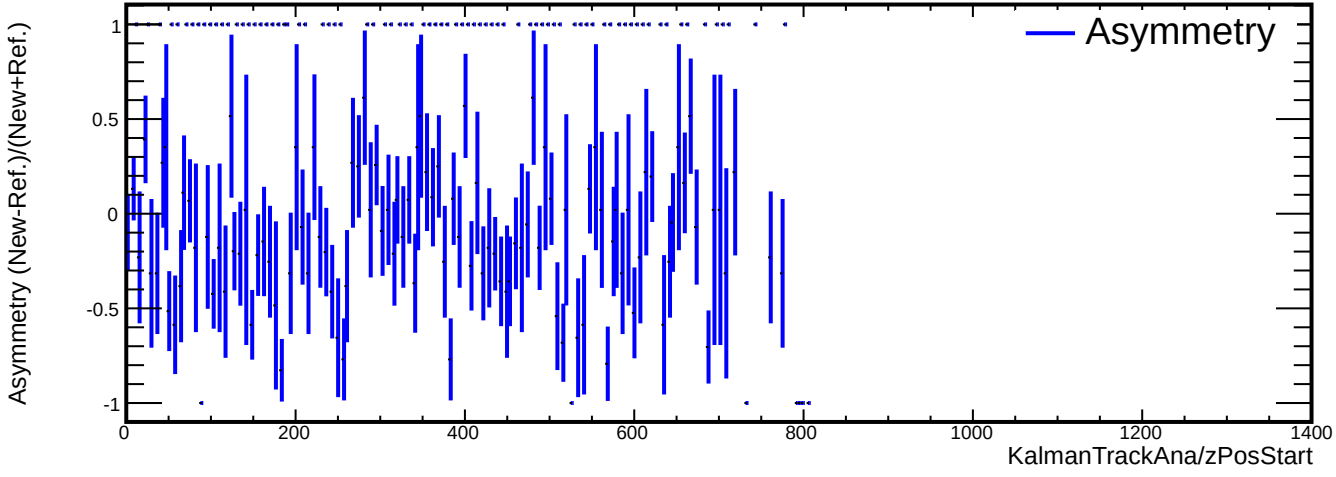

Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
0.4
0.2
0
-0.2
0
50
100
150
KalmanTrackAna/hitsPerPlane

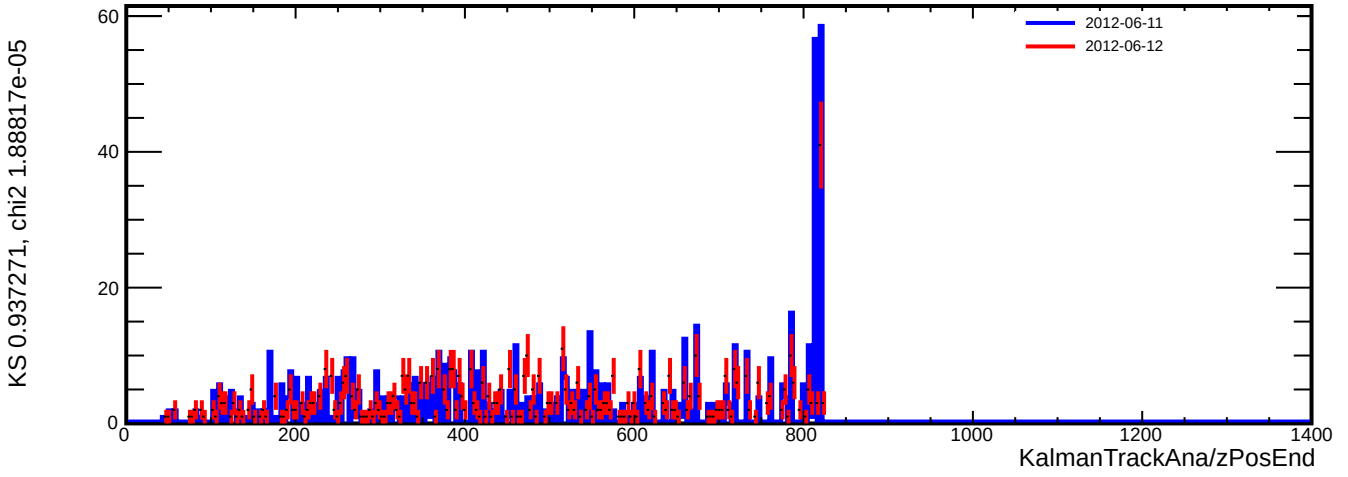

KS 0.66452, chi2 0.0127818
2012-06-11
2012-06-12
150
100
50
0
20
40
60
KalmanTrackAna/xHitsPerCell

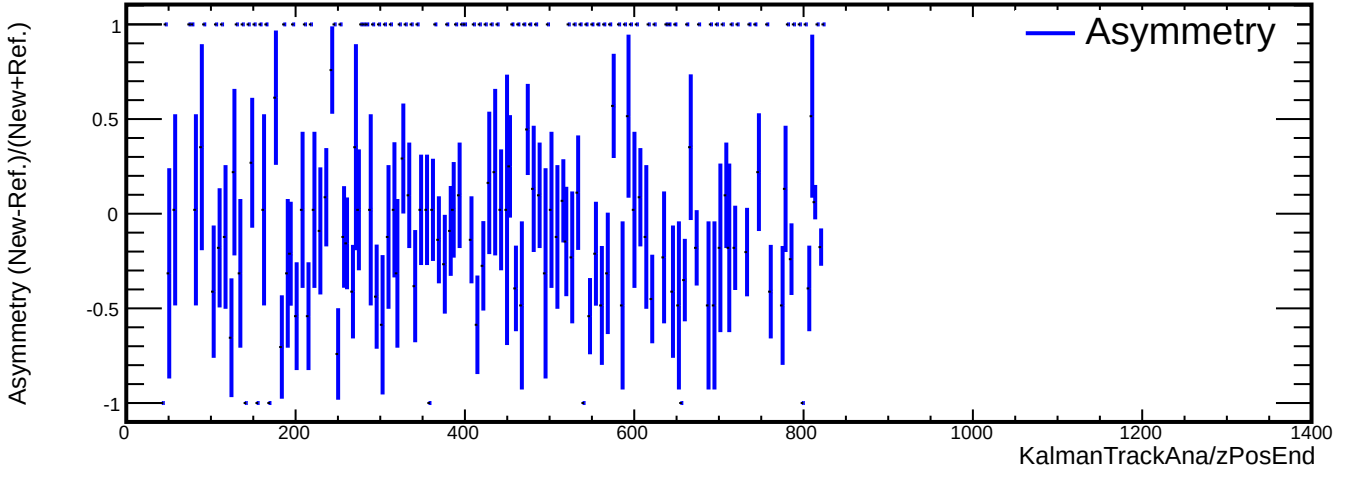

Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
0.2
0
-0.2
-0.4
0
20
40
60
KalmanTrackAna/xHitsPerCell

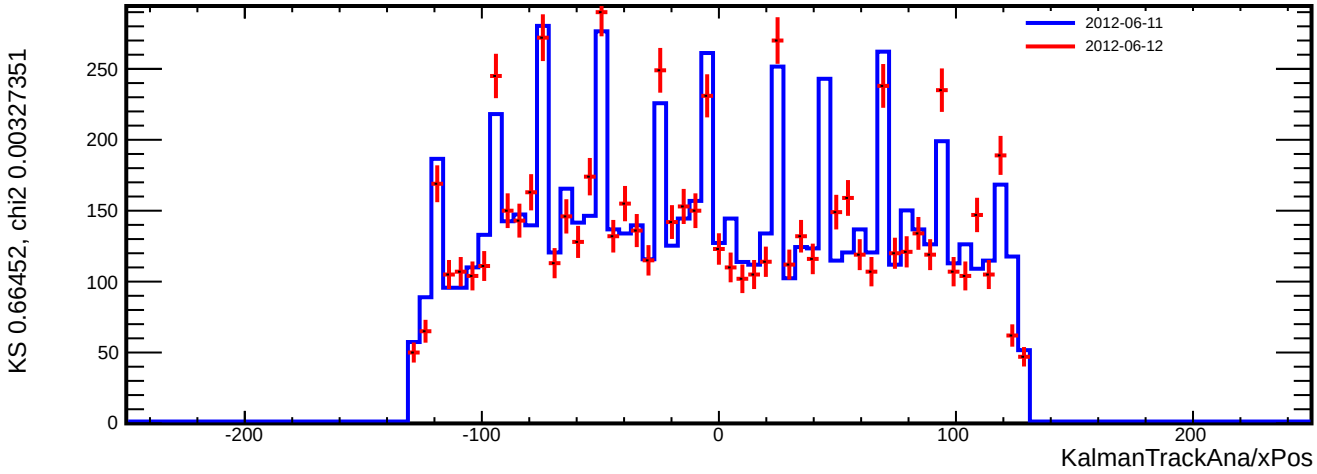

KS 1.552e-05, chi2 1.03653e-13
2012-06-11
2012-06-12
KalmanTrackAna/yHitsPerCell
Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
KalmanTrackAna/yHitsPerCell

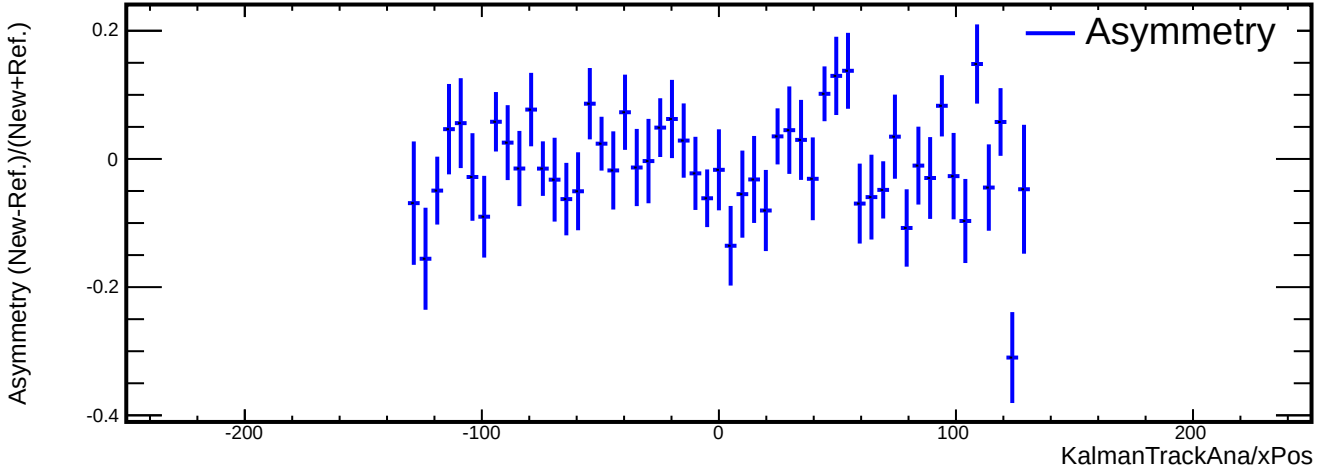

KS 0.531889, chi2 2.02322e-08
2012-06-11
2012-06-12
0
5
10
15
0
200
400
600
800
1000
1200
1400
KalmanTrackAna/zPosStart

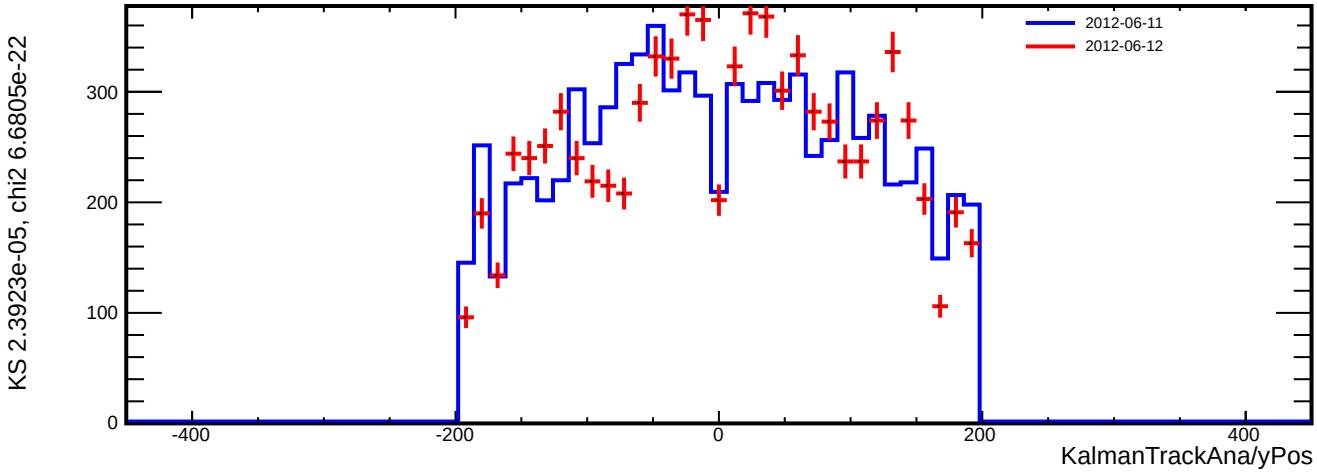

Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
1
0.5
0
-0.5
-1
0
200
400
600
800
1000
1200
1400
KalmanTrackAna/zPosStart

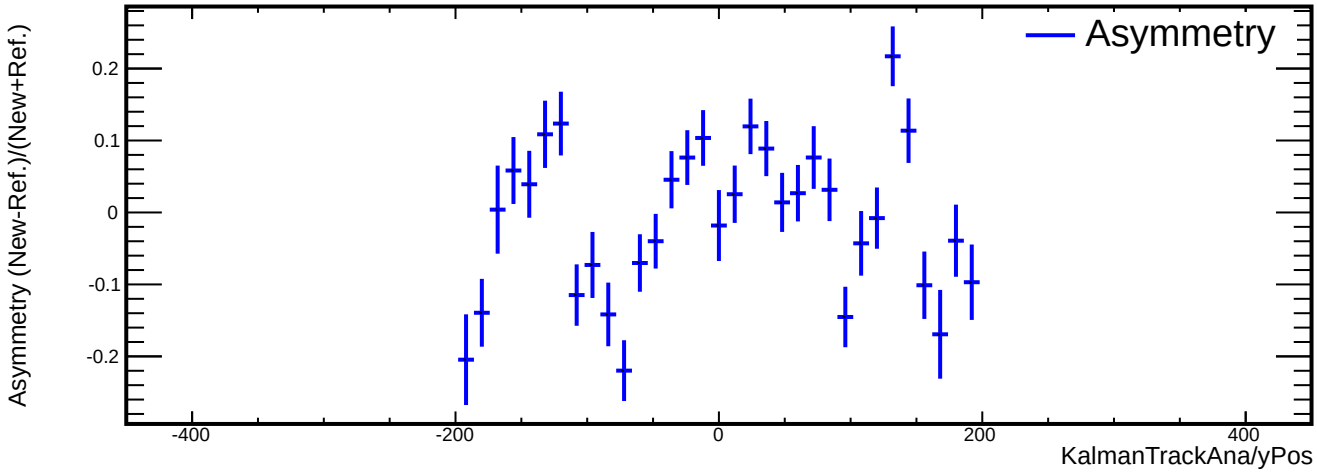

KS 0.937271, chi2 1.88817e-05
2012-06-11
2012-06-12
KalmanTrackAna/zPosEnd

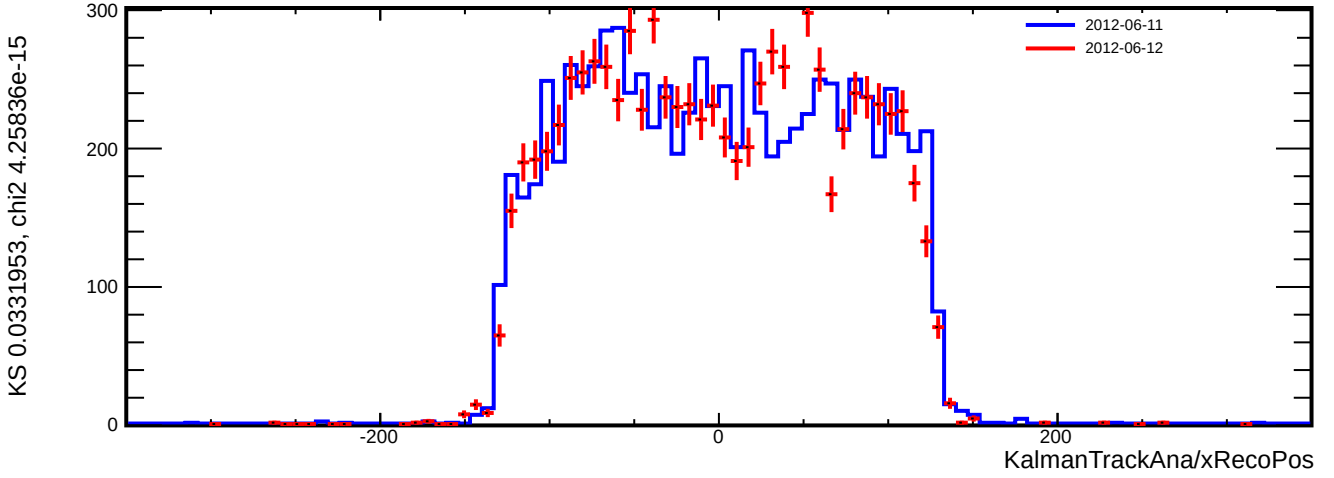

Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
KalmanTrackAna/zPosEnd

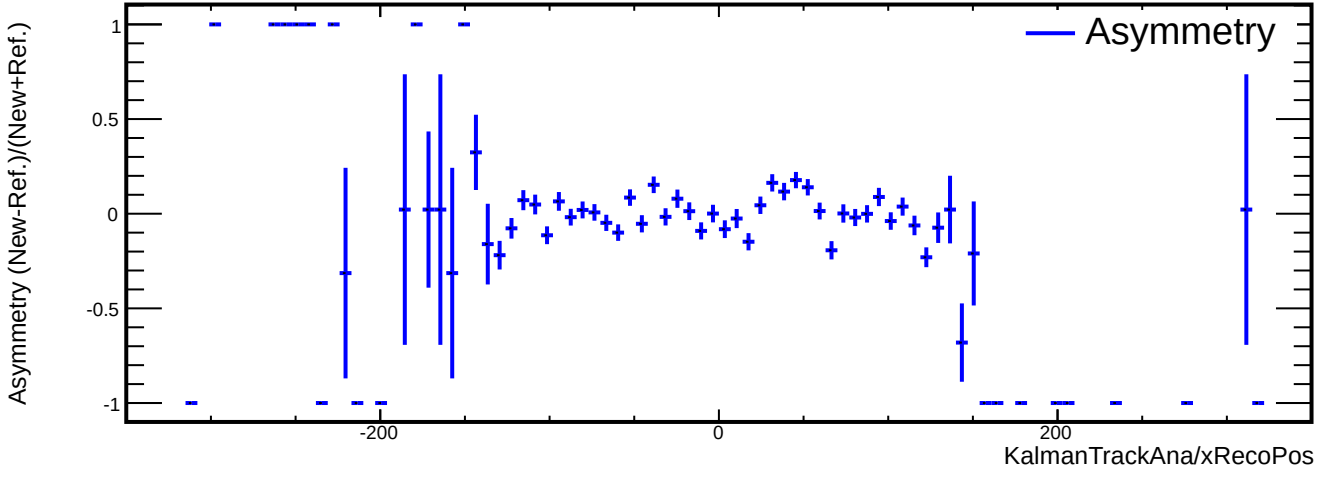

KS 0.66452, chi2 0.00327351
2012-06-11
2012-06-12
250
200
150
100
50
0
-200
-100
0
100
200
KalmanTrackAna/xPos

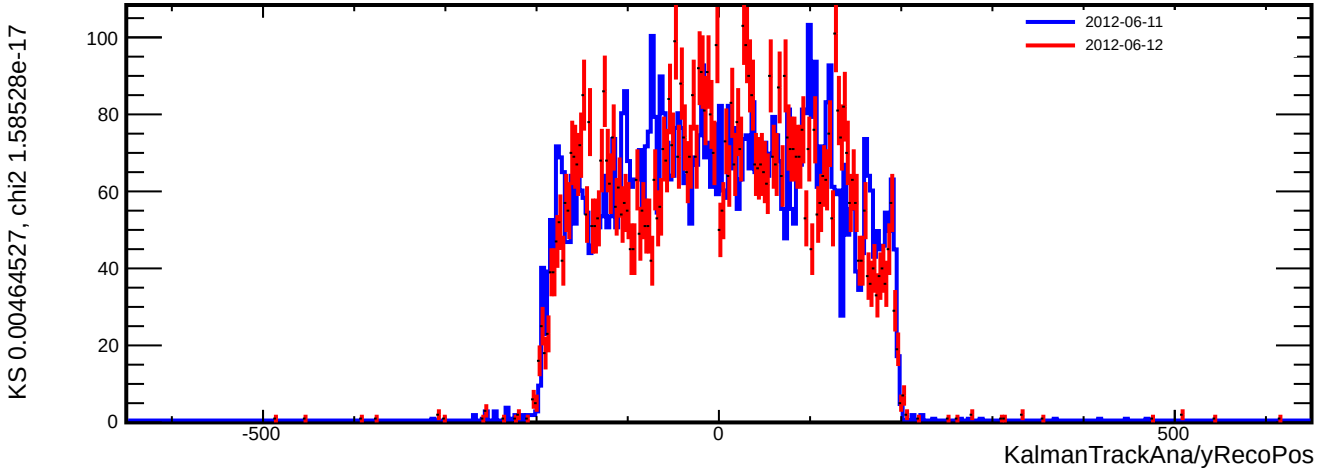

Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
0.2
0
-0.2
-0.4
-200
-100
0
100
200
KalmanTrackAna/xPos

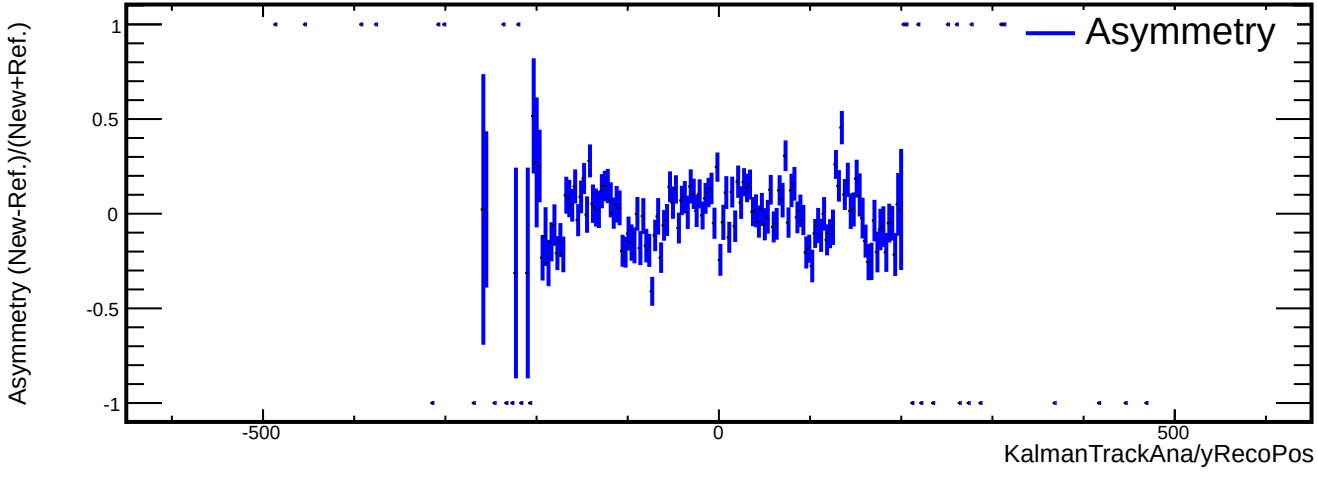

KS 2.3923e-05, chi2 6.6805e-22
2012-06-11
2012-06-12
300
200
100
0
-400
-200
0
200
400
KalmanTrackAna/yPos

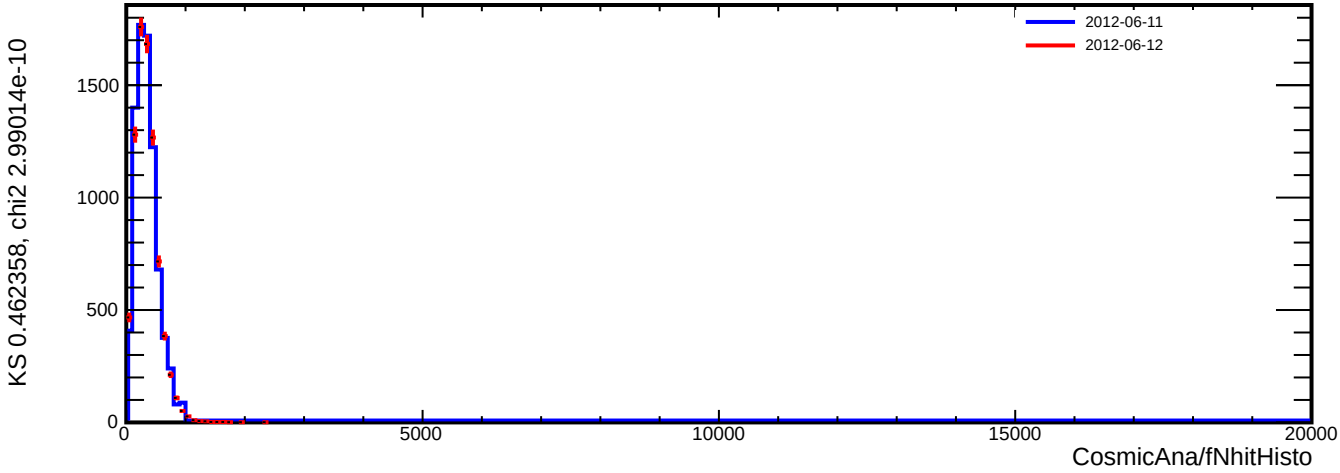

Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
0.2
0.1
0
-0.1
-0.2
-400
-200
0
200
400
KalmanTrackAna/yPos

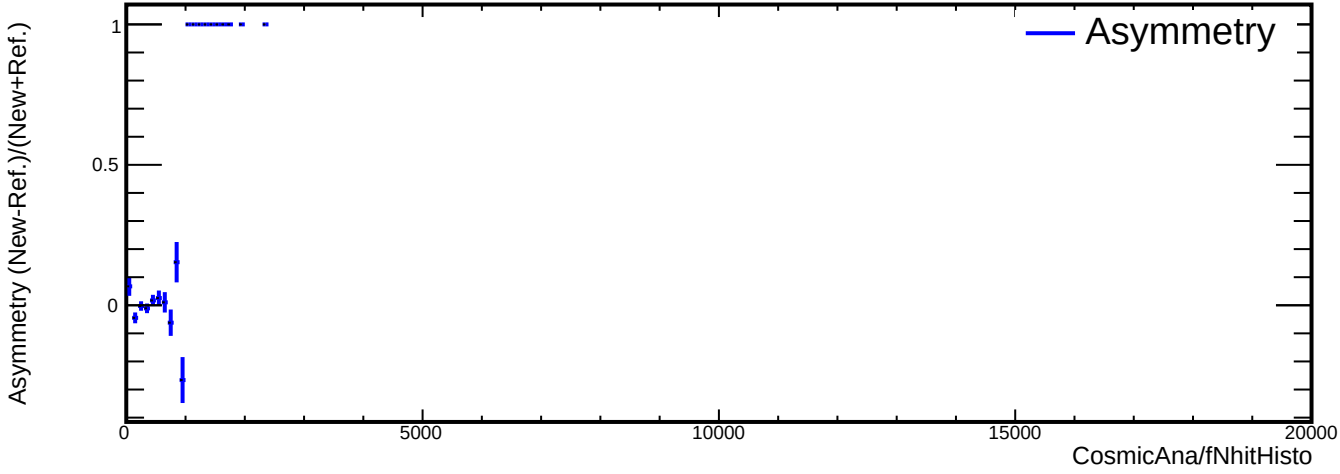

KS 0.0331953, chi2 4.25836e-15
300
200
100
0
-200
0
200
KalmanTrackAna/xRecoPos
2012-06-11
2012-06-12

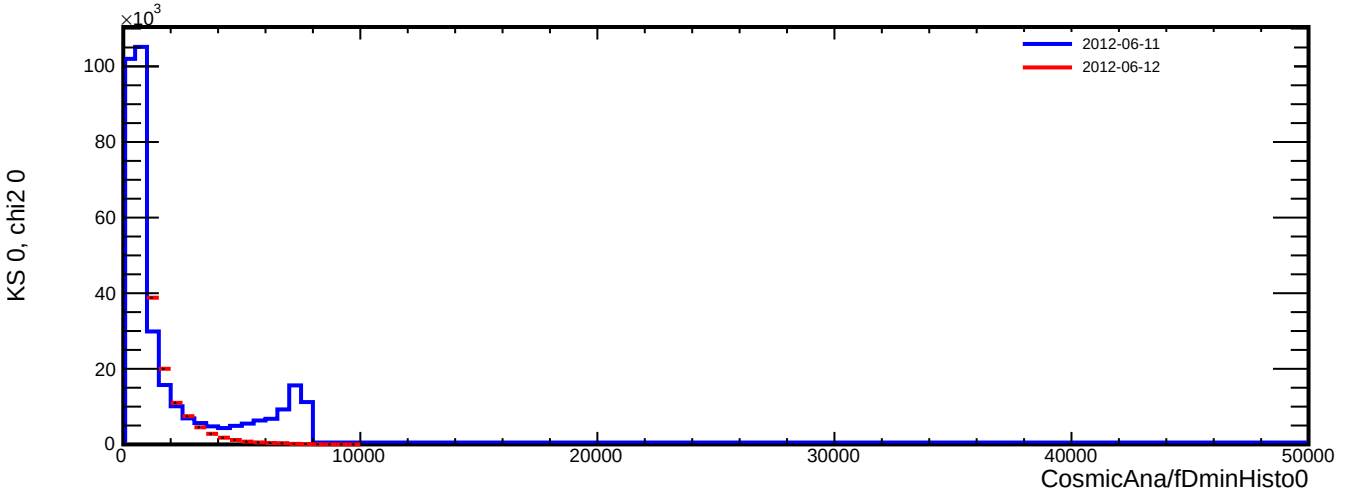

Asymmetry (New-Ref.)/(New+Ref.)
1
0.5
0
-0.5
-1
-200
0
200
KalmanTrackAna/xRecoPos
Asymmetry

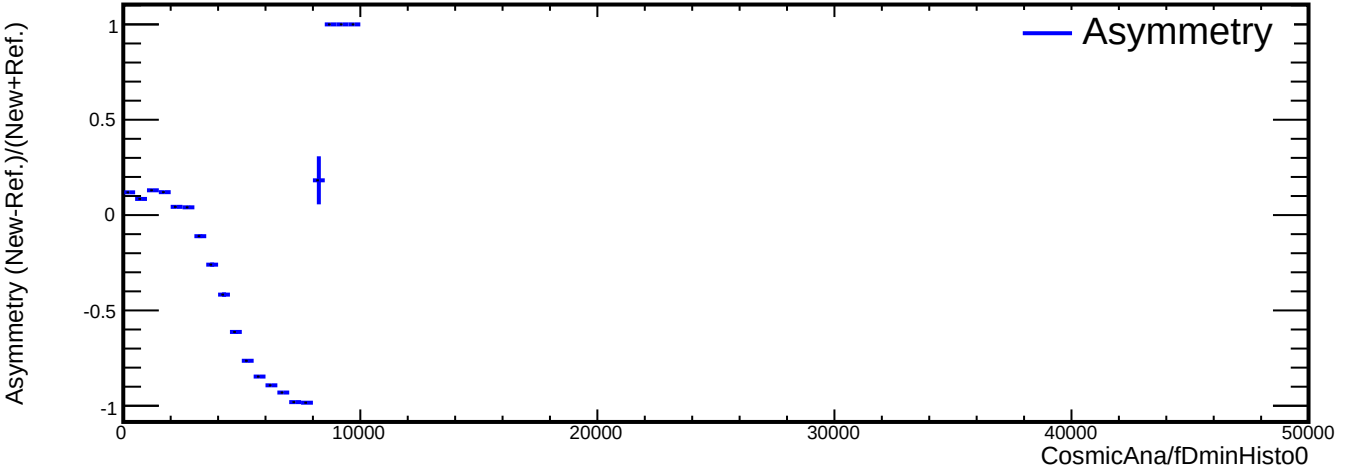

KS 0.00464527, chi2 1.58528e-17
2012-06-11
2012-06-12
100
80
60
40
20
0
-500
0
500
KalmanTrackAna/yRecoPos

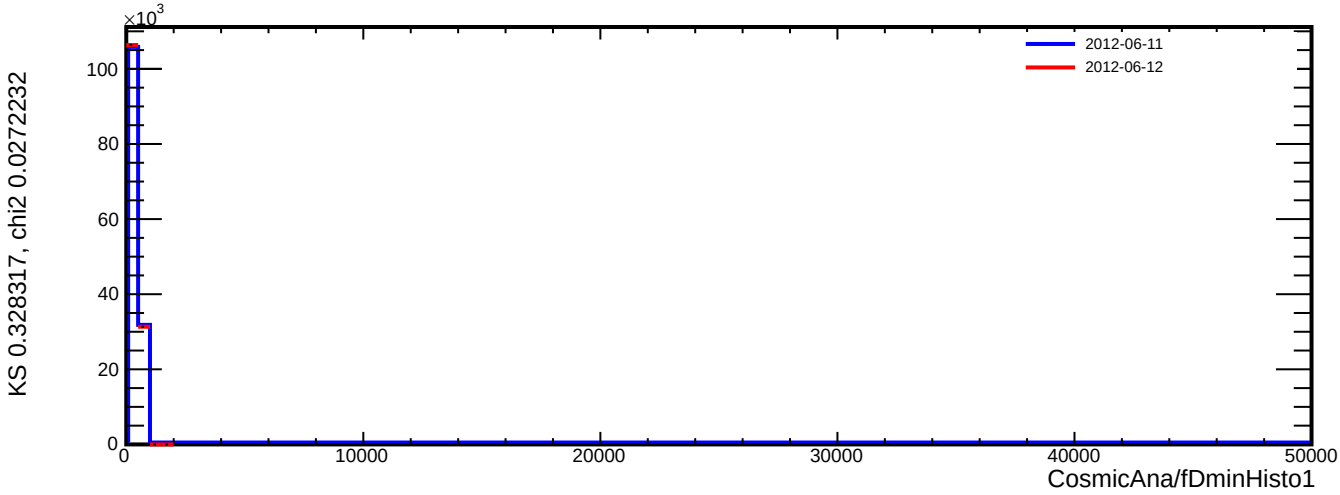

Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
1
0.5
0
-0.5
-1
-500
0
500
KalmanTrackAna/yRecoPos

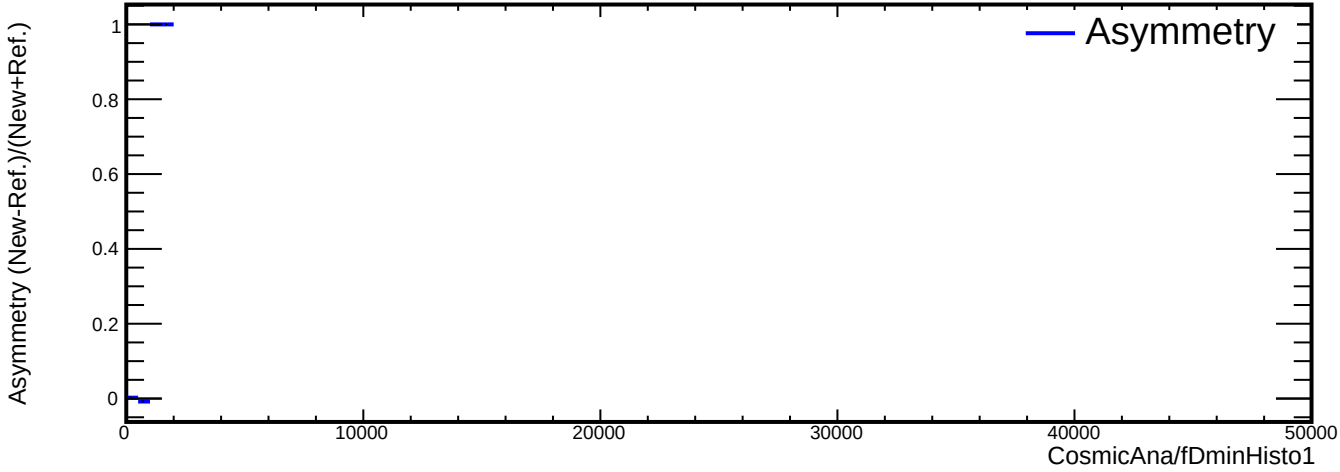

KS 0.462358, chi2 2.99014e-10
2012-06-11
2012-06-12
1500
1000
500
0
0
5000
10000
15000
20000
CosmicAna/fNhitHisto

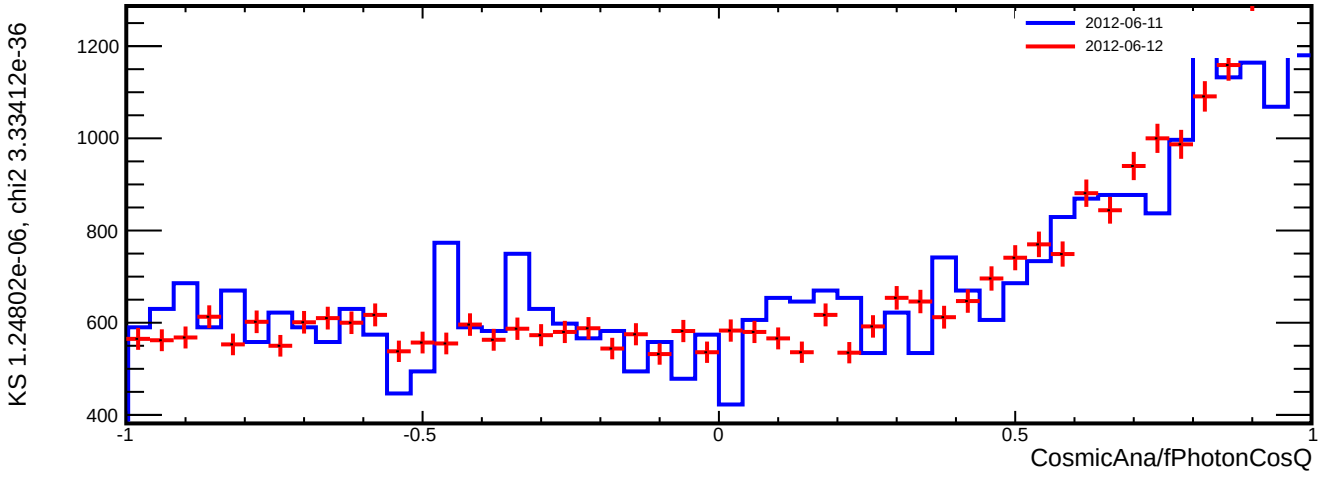

Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
1
0.5
0
0
5000
10000
15000
20000
CosmicAna/fNhitHisto

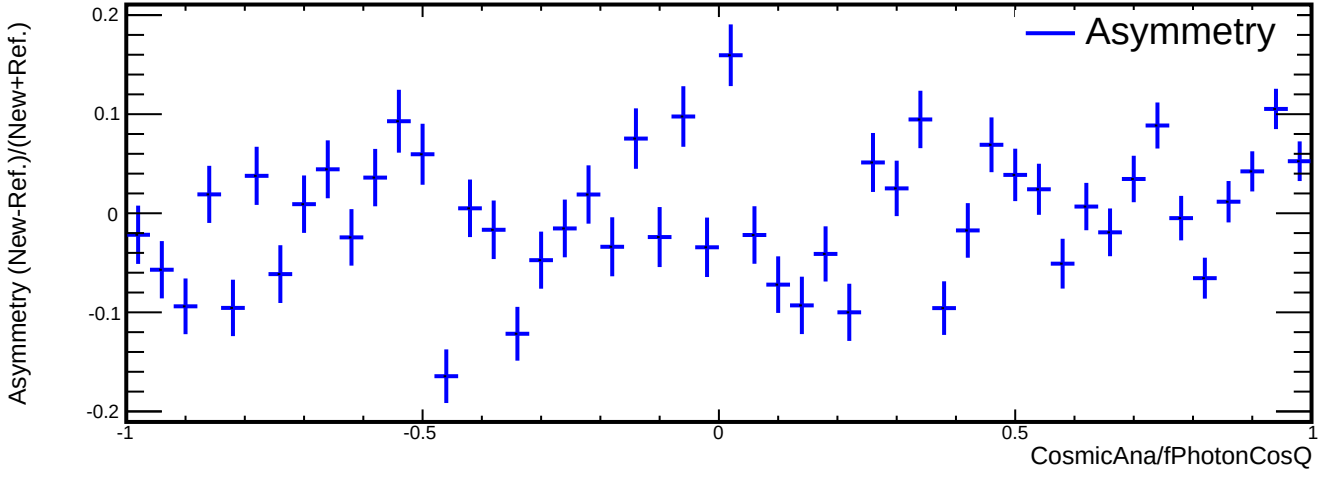

×10^3
100
80
60
40
20
0
KS 0, chi2 0
0
10000
20000
30000
40000
50000
CosmicAna/fDminHisto0
2012-06-11
2012-06-12

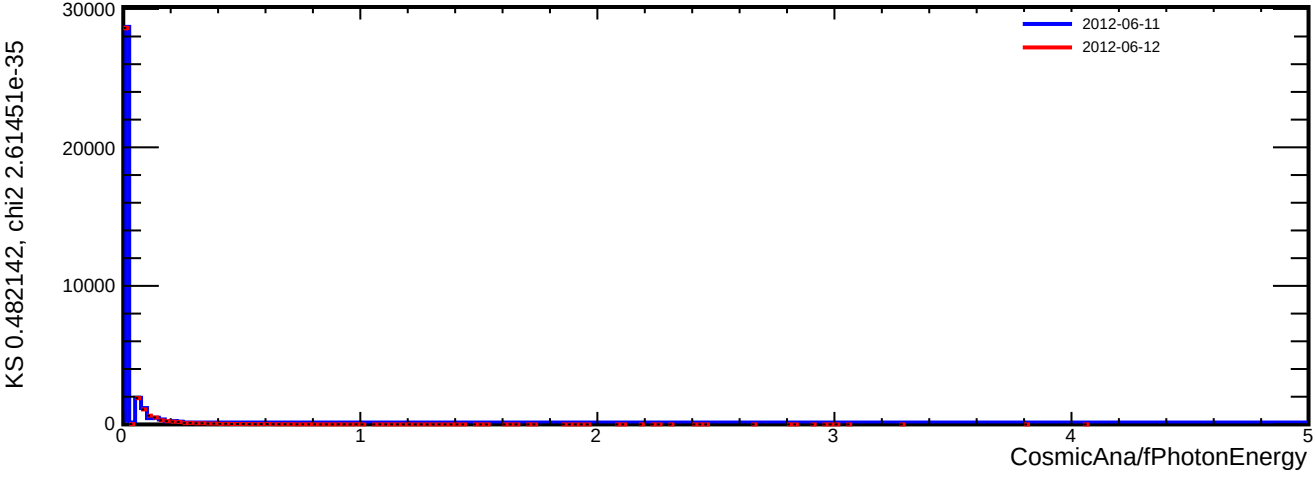

1
0.5
0
-0.5
-1
Asymmetry (New-Ref.)/(New+Ref.)
0
10000
20000
30000
40000
50000
CosmicAna/fDminHisto0
Asymmetry

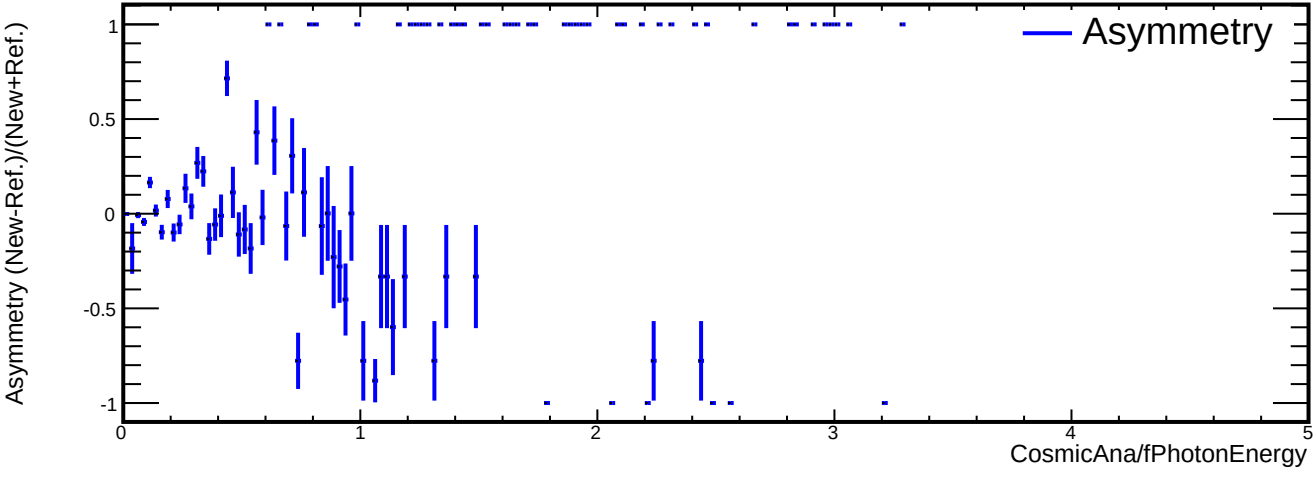

×10^3
100
80
60
40
20
0
0
10000
20000
30000
40000
50000
2012-06-11
2012-06-12
KS 0.328317, chi2 0.0272232
CosmicAna/fDminHisto1

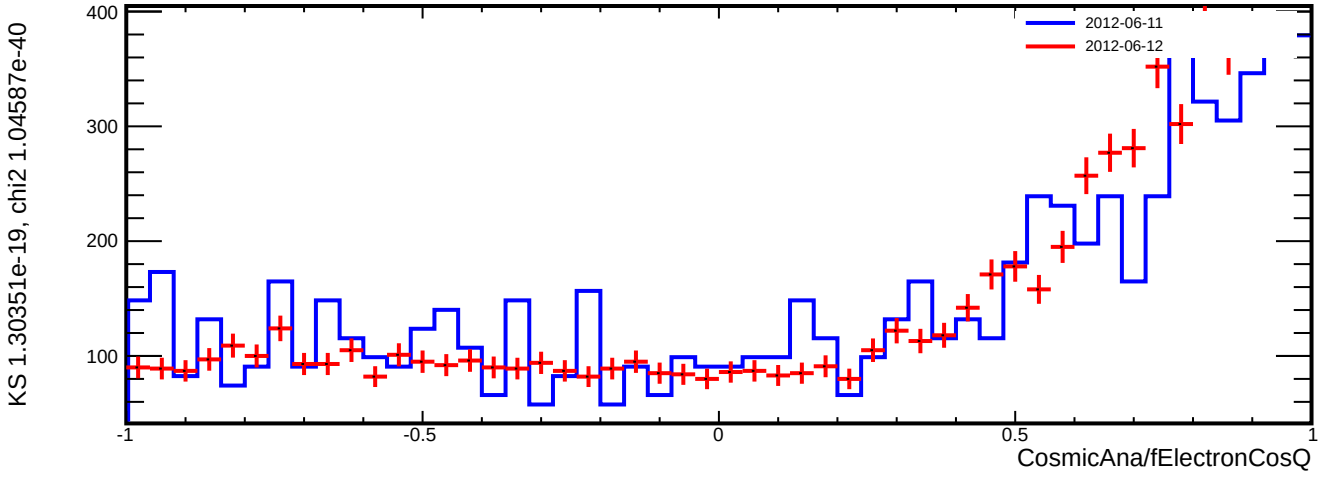

1
0.8
0.6
0.4
0.2
0
0
10000
20000
30000
40000
50000
Asymmetry
Asymmetry (New-Ref.)/(New+Ref.)
CosmicAna/fDminHisto1

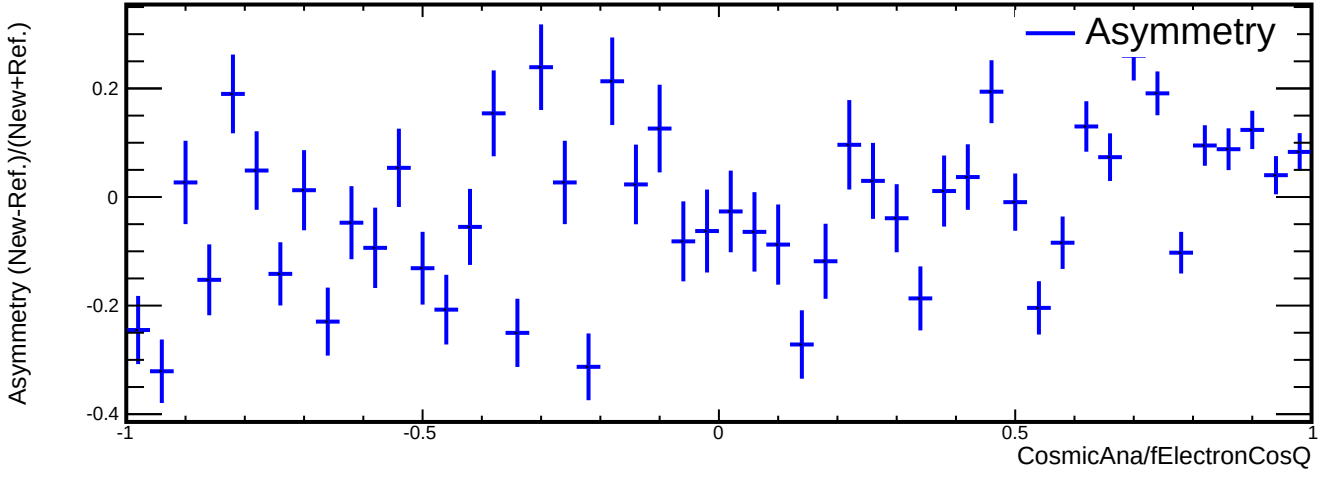

KS 1.24802e-06, chi2 3.33412e-36
2012-06-11
2012-06-12
1200
1000
800
600
400
-1
-0.5
0
0.5
1
CosmicAna/fPhotonCosQ

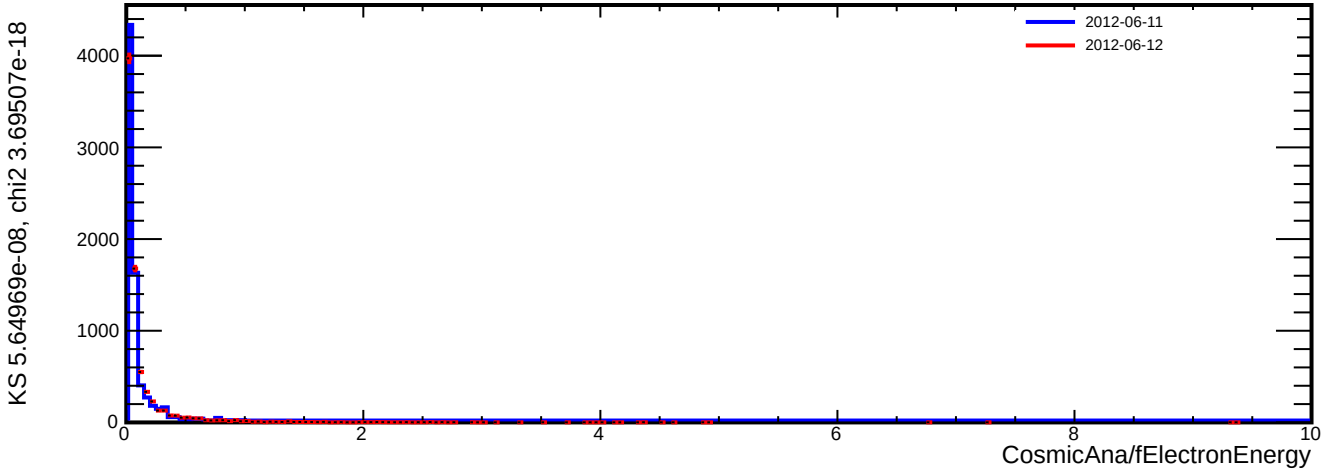

Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
0.2
0.1
0
-0.1
-0.2
-1
-0.5
0
0.5
1
CosmicAna/fPhotonCosQ

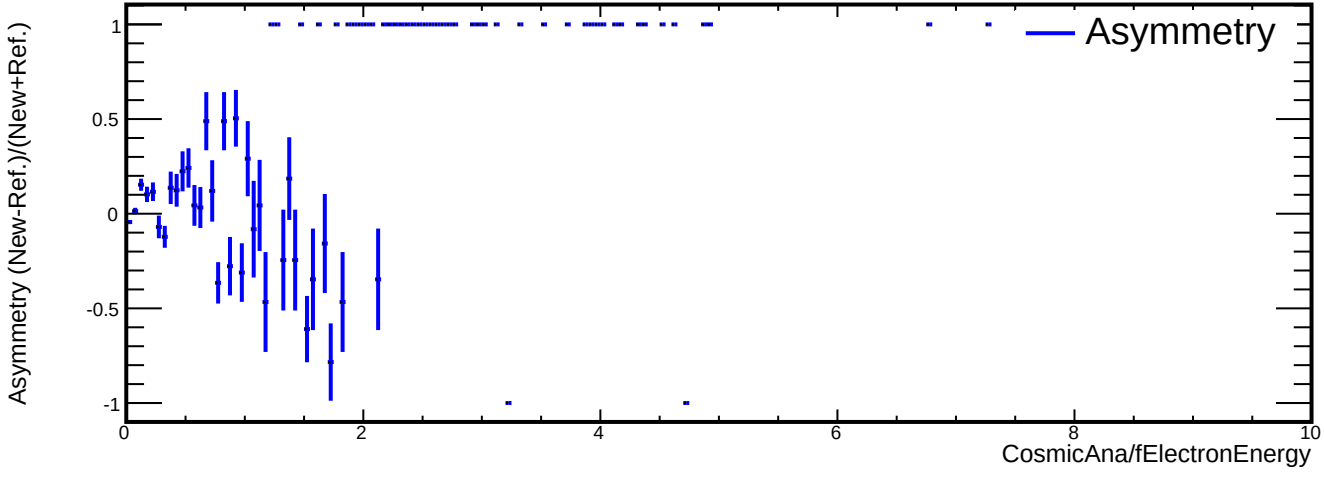

KS 0.482142, chi2 2.61451e-35
30000
20000
10000
0
0
1
2
3
4
5
CosmicAna/fPhotonEnergy
2012-06-11
2012-06-12

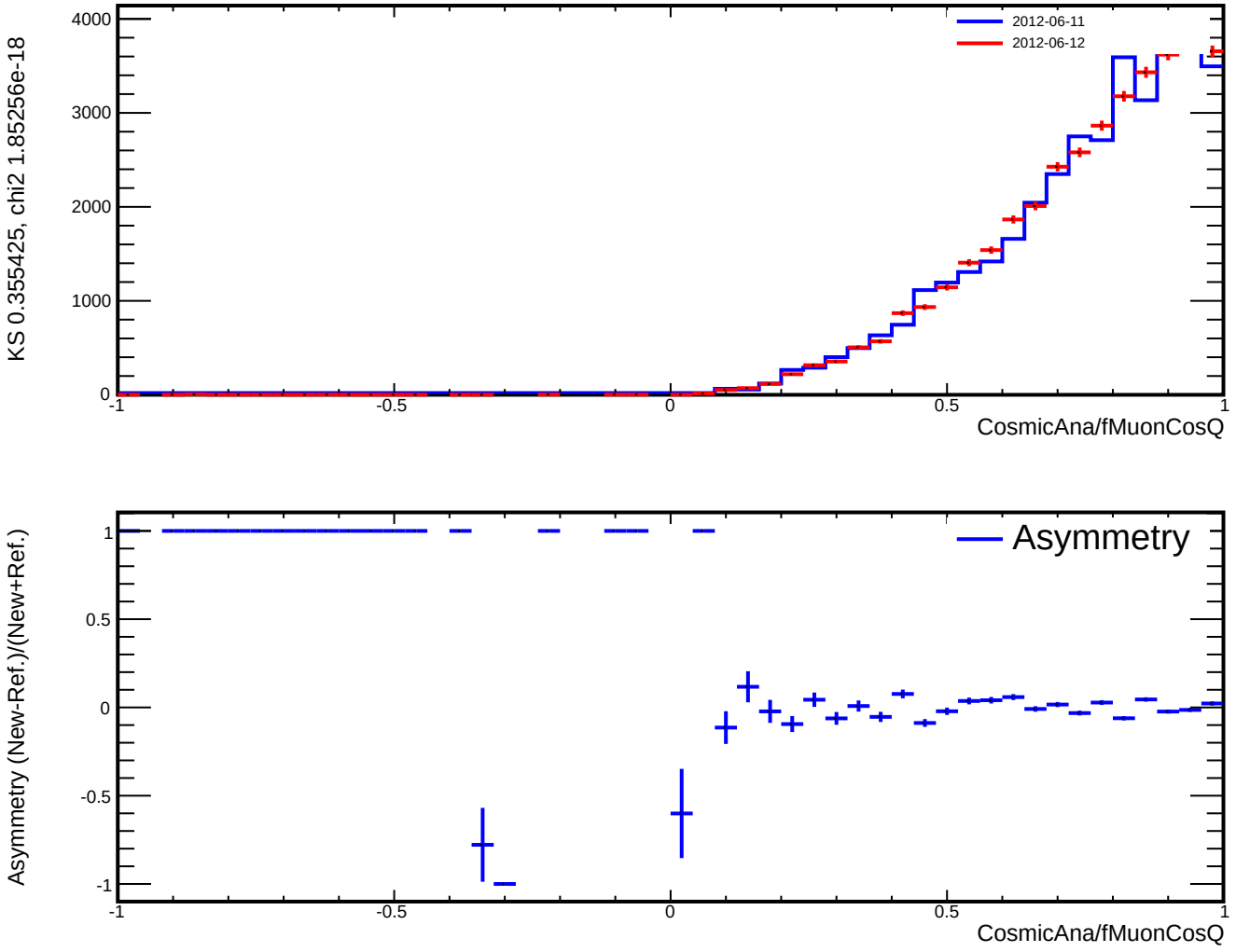

Asymmetry (New-Ref.)/(New+Ref.)
1
0.5
0
-0.5
-1
0
1
2
3
4
5
CosmicAna/fPhotonEnergy
Asymmetry

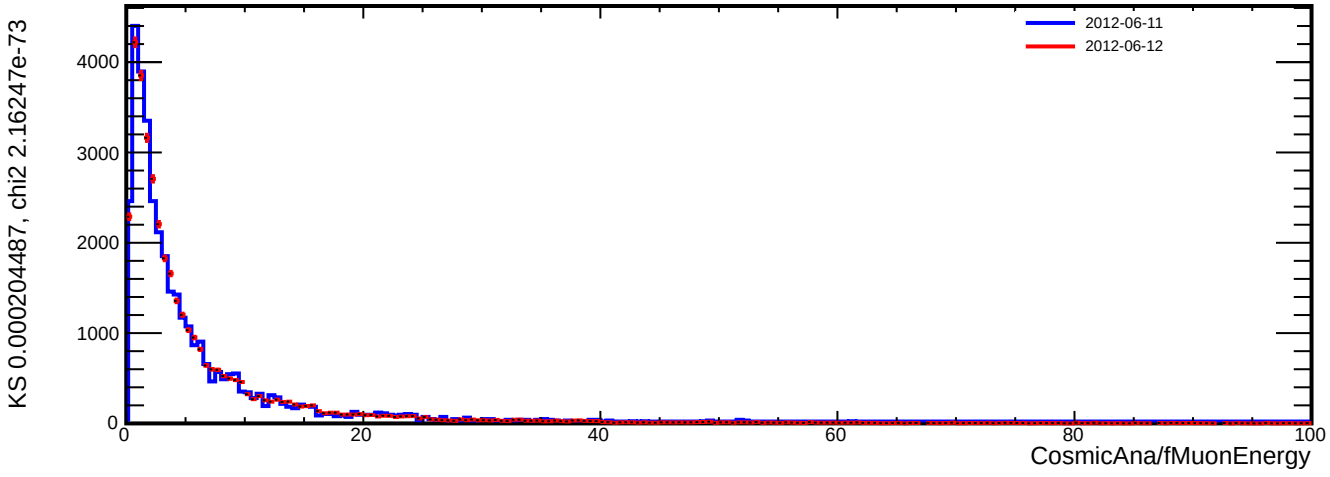

KS 1.30351e-19, chi2 1.04587e-40
400
300
200
100
-1
-0.5
0
0.5
1
CosmicAna/fElectronCosQ
2012-06-11
2012-06-12

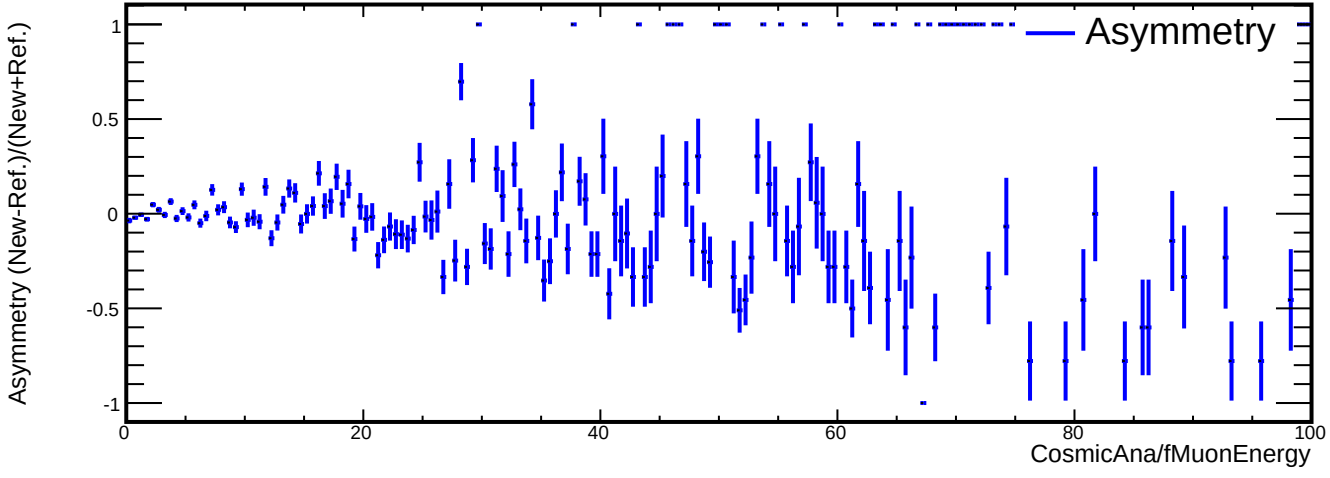

Asymmetry (New-Ref.)/(New+Ref.)
0.2
0
-0.2
-0.4
-1
-0.5
0
0.5
1
CosmicAna/fElectronCosQ
Asymmetry

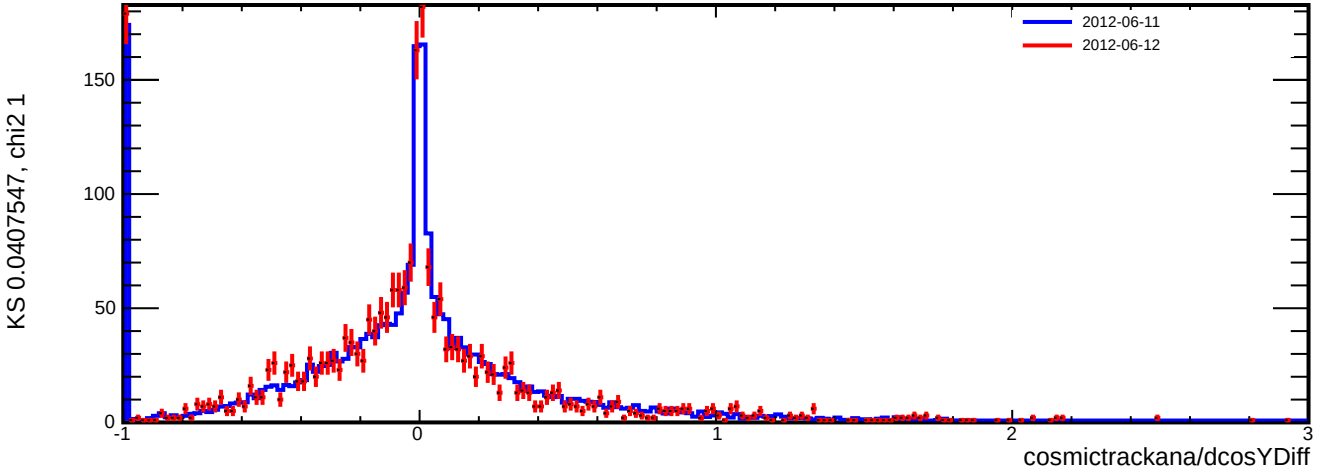

KS 5.64969e-08, chi2 3.69507e-18
2012-06-11
2012-06-12
4000
3000
2000
1000
0
0
2
4
6
8
10
CosmicAna/fElectronEnergy

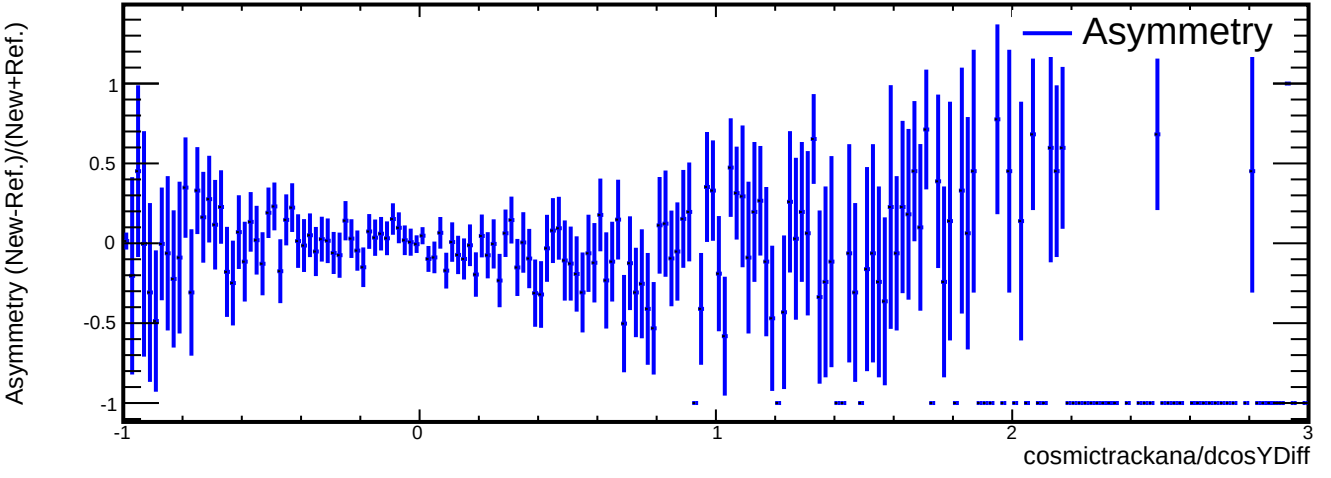

Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
1
0.5
0
-0.5
-1
0
2
4
6
8
10
CosmicAna/fElectronEnergy

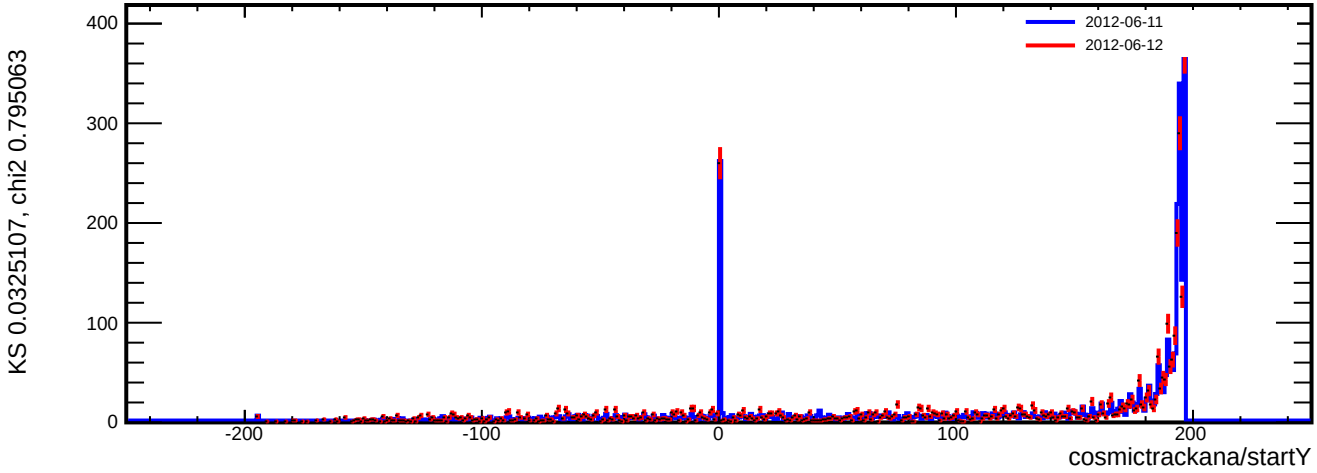

KS 0.355425, chi2 1.85256e-18
2012-06-11
2012-06-12
CosmicAna/fMuonCosQ
Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
CosmicAna/fMuonCosQ

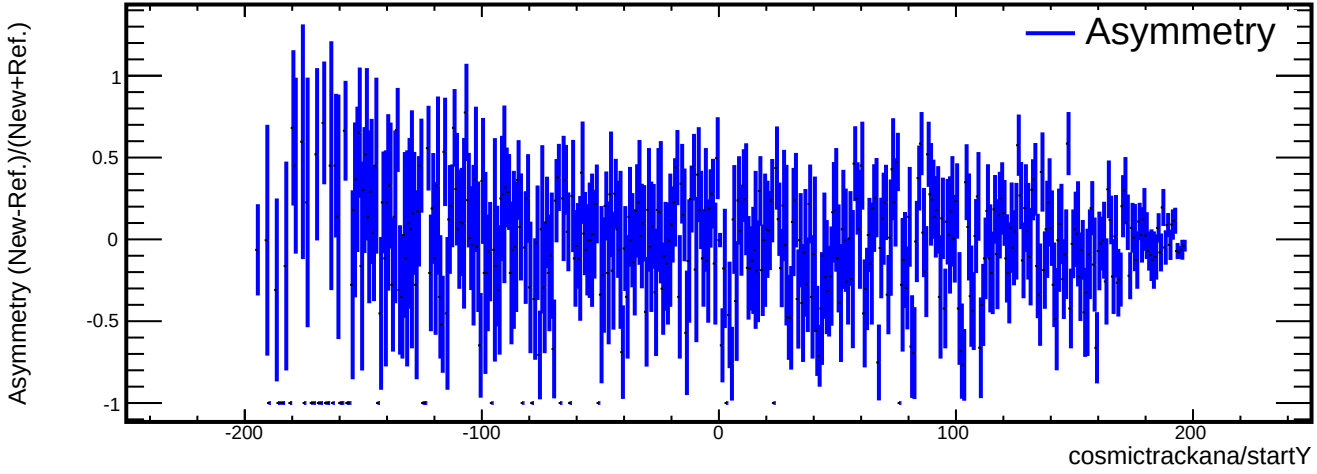

KS 0.000204487, chi2 2.16247e-73
2012-06-11
2012-06-12
4000
3000
2000
1000
0
0
20
40
60
80
100
CosmicAna/fMuonEnergy

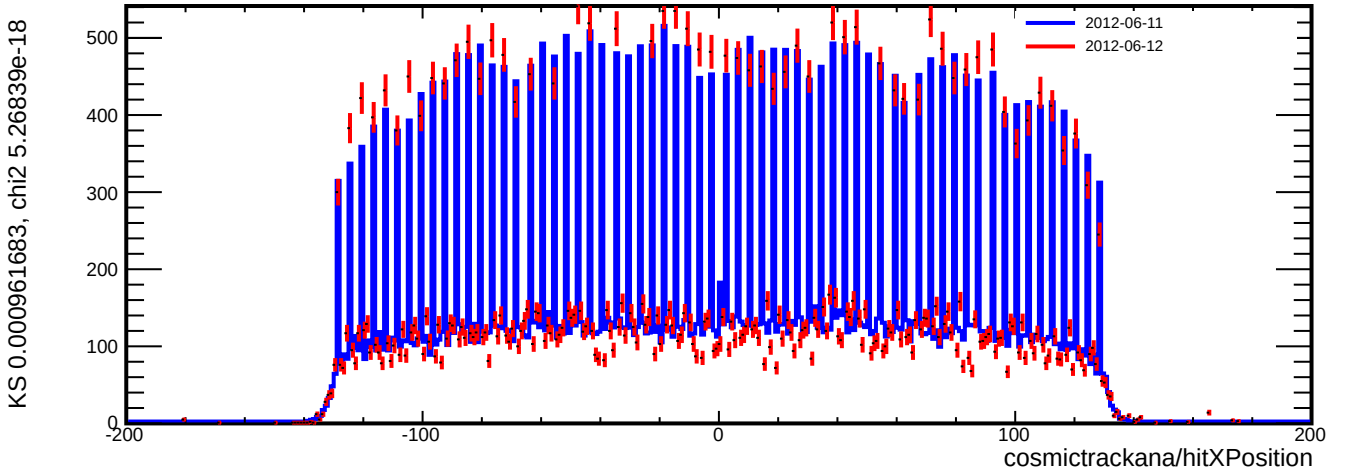

Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
1
0.5
0
-0.5
-1
0
20
40
60
80
100
CosmicAna/fMuonEnergy

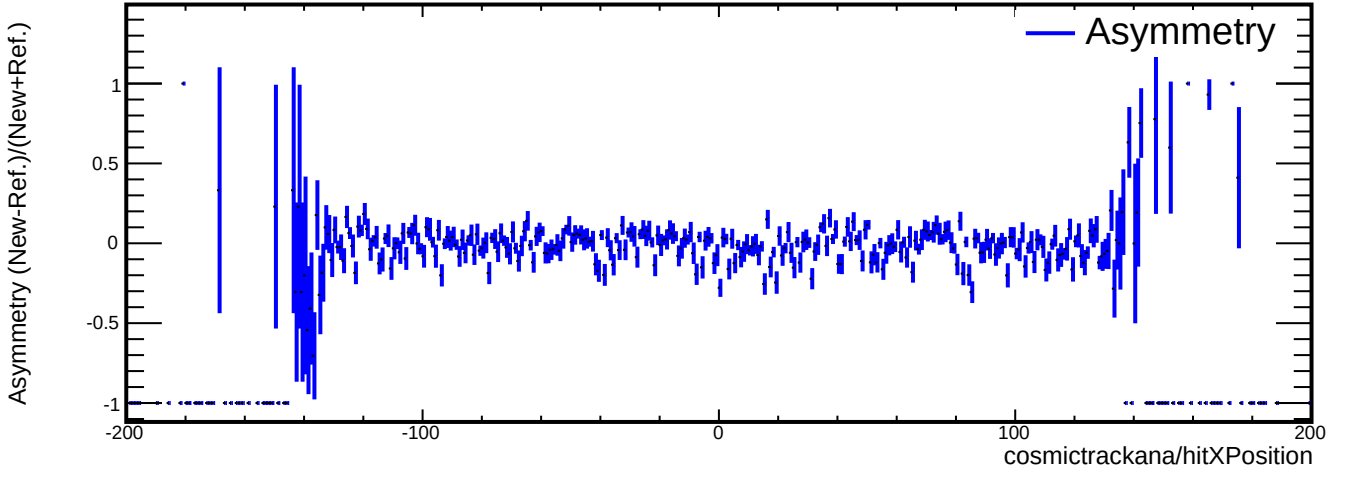

KS 0.0407547, chi2 1
150
100
50
0
-1
0
1
2
3
cosmictrackana/dcosYDiff
2012-06-11
2012-06-12

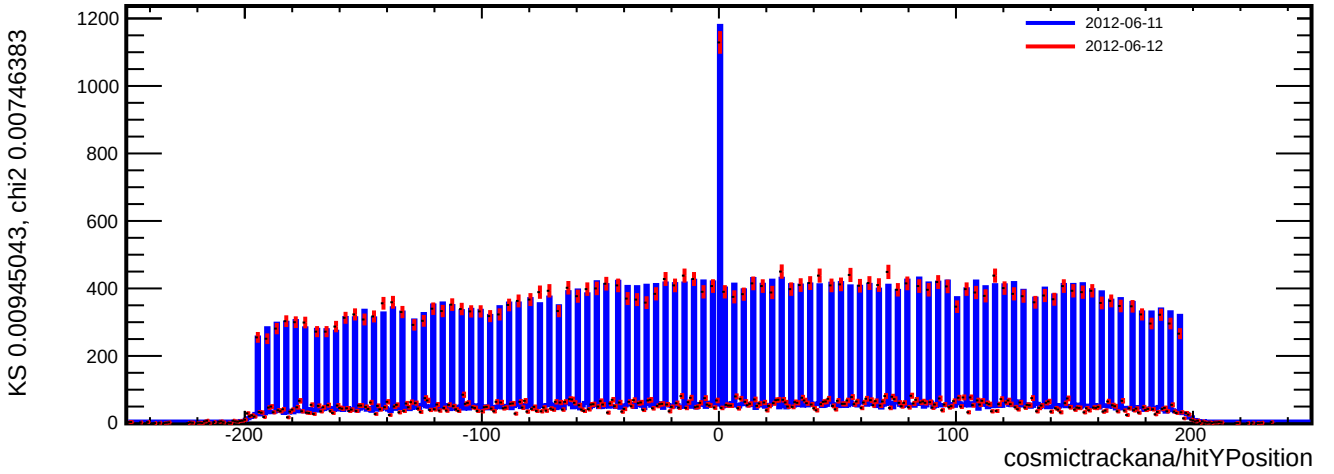

Asymmetry (New-Ref.)/(New+Ref.)
1
0.5
0
-0.5
-1
-1
0
1
2
3
cosmictrackana/dcosYDiff
Asymmetry

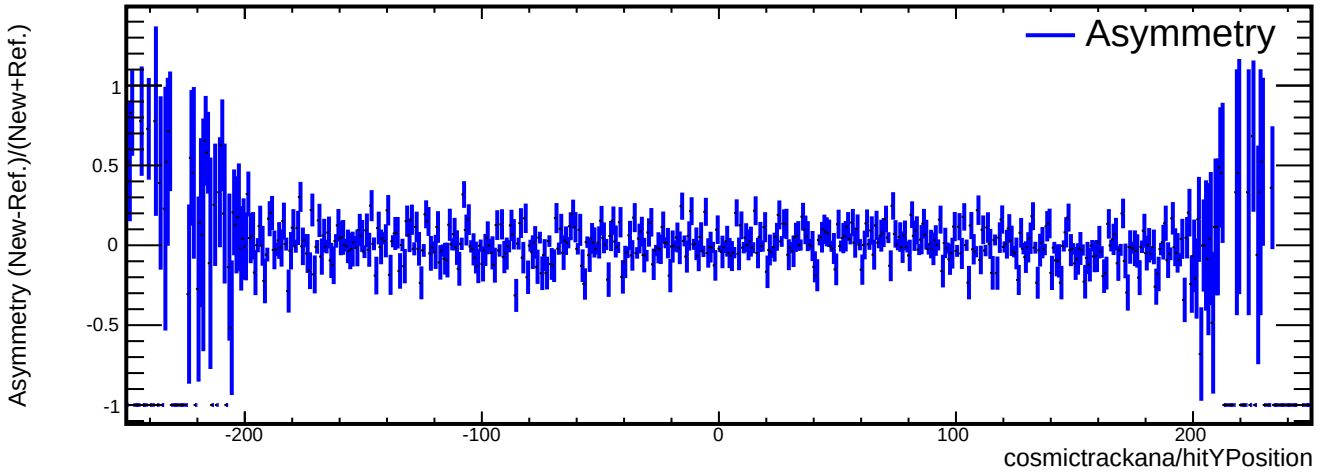

KS 0.0325107, chi2 0.795063
2012-06-11
2012-06-12
400
300
200
100
0
-200
-100
0
100
200
cosmictrackana/startY

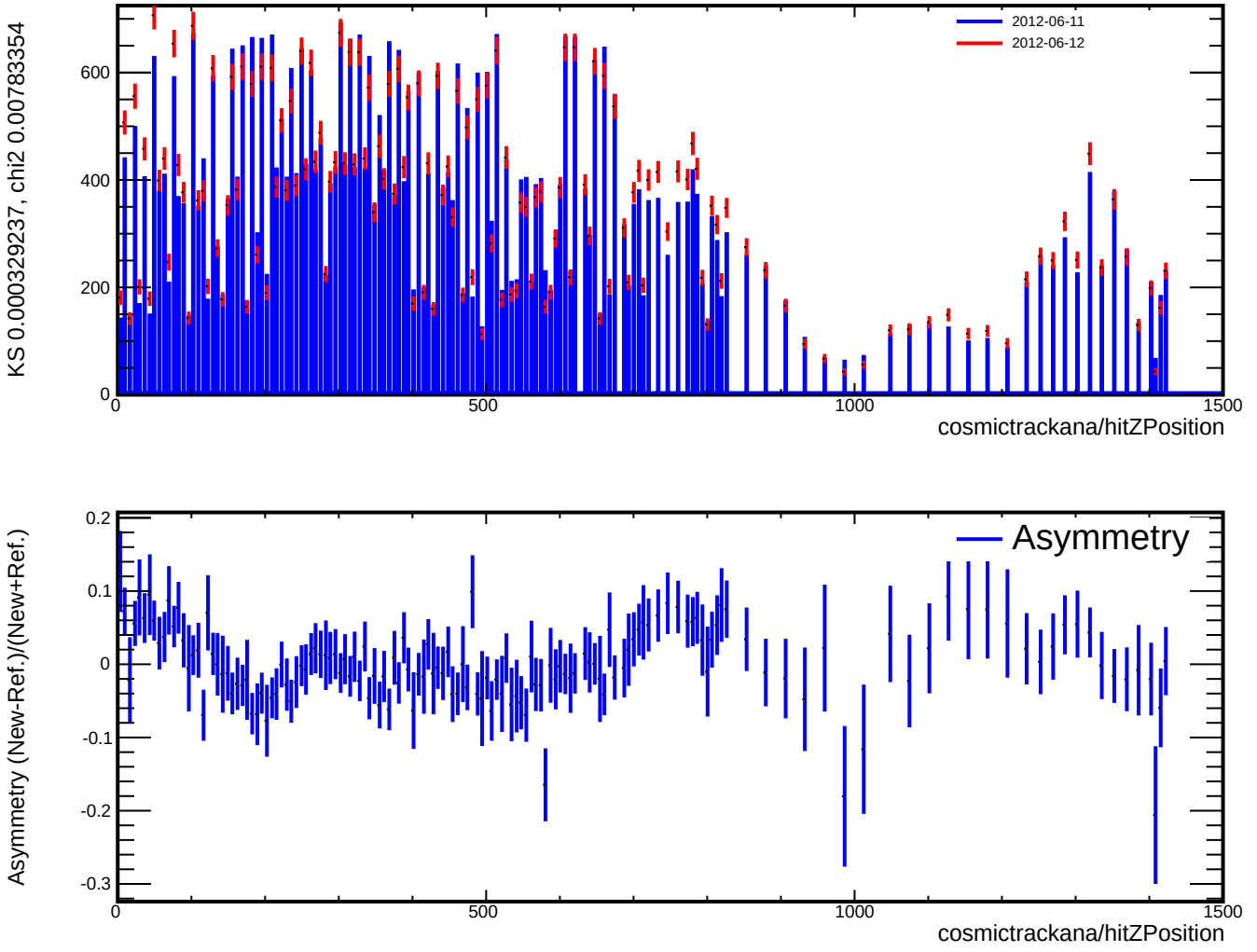

Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
1
0.5
0
-0.5
-1
-200
-100
0
100
200
cosmictrackana/startY

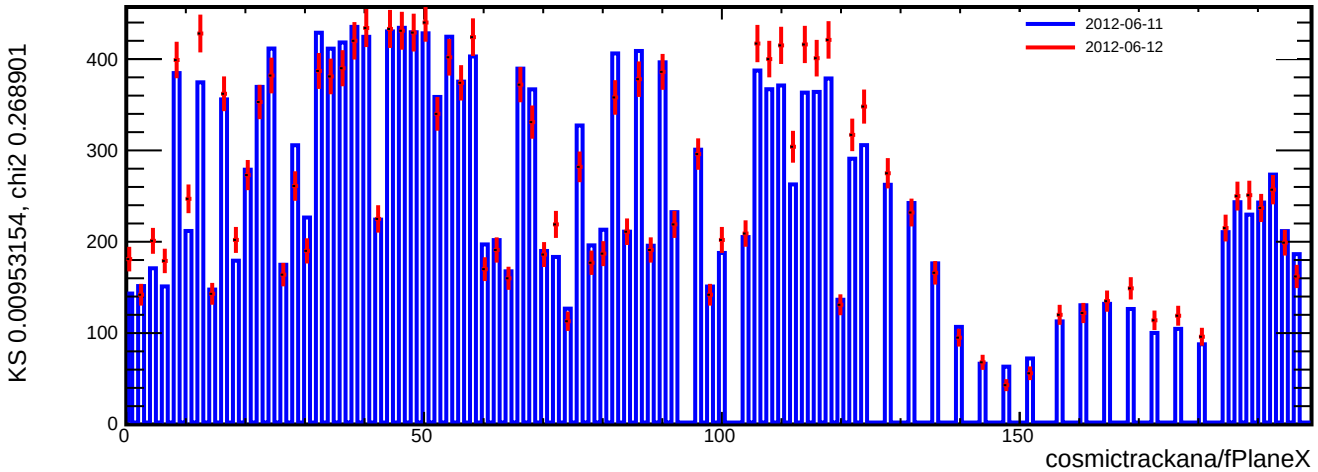

KS 0.000961683, chi2 5.26839e-18
2012-06-11
2012-06-12
500
400
300
200
100
0
-200
-100
0
100
200
cosmictrackana/hitXPosition

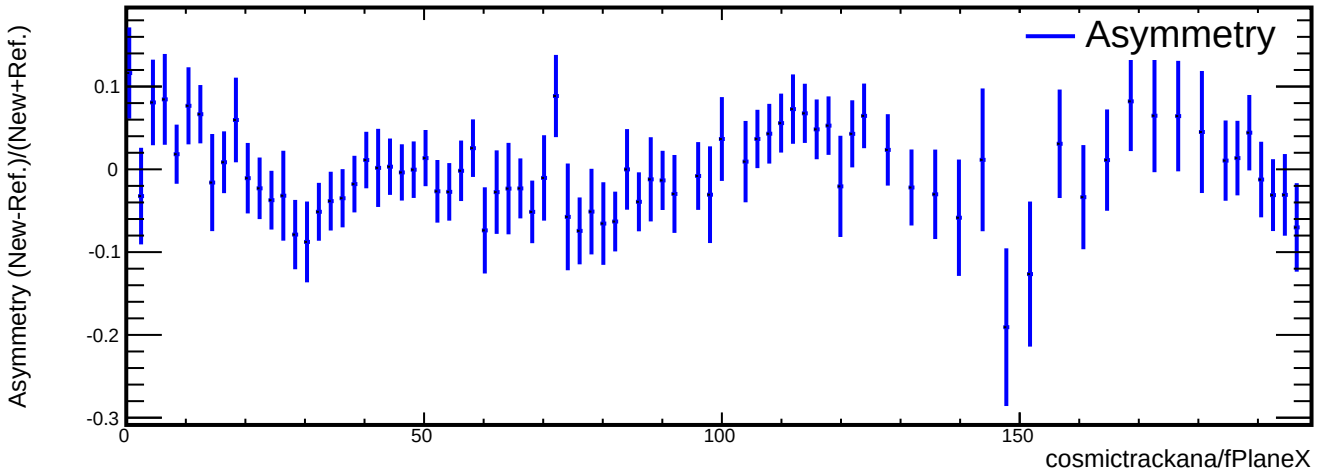

Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
1
0.5
0
-0.5
-1
-200
-100
0
100
200
cosmictrackana/hitXPosition

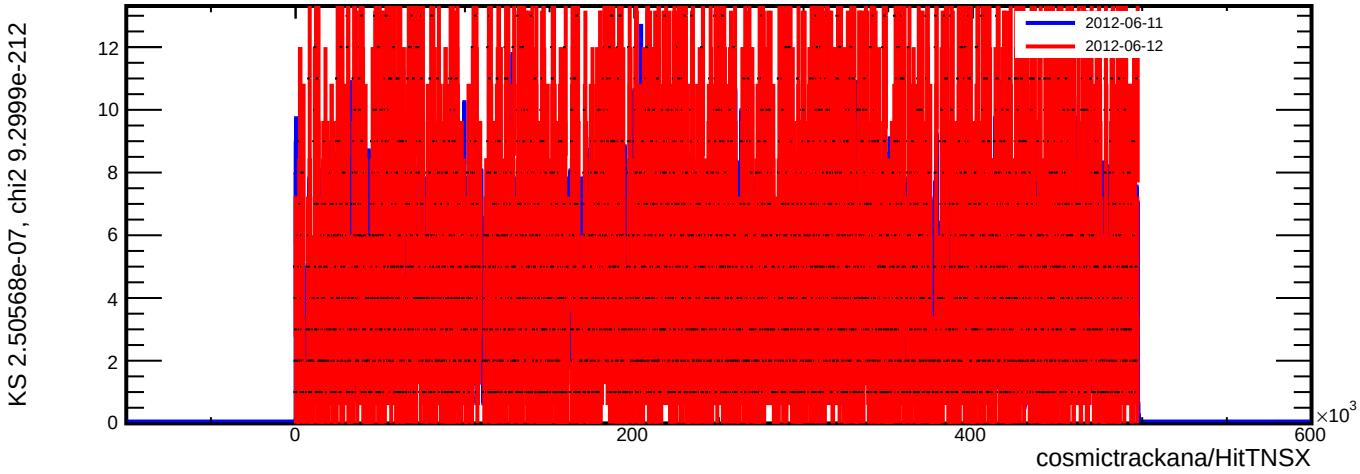

KS 0.00945043, chi2 0.00746383
2012-06-11
2012-06-12
cosmictrackana/hitYPosition

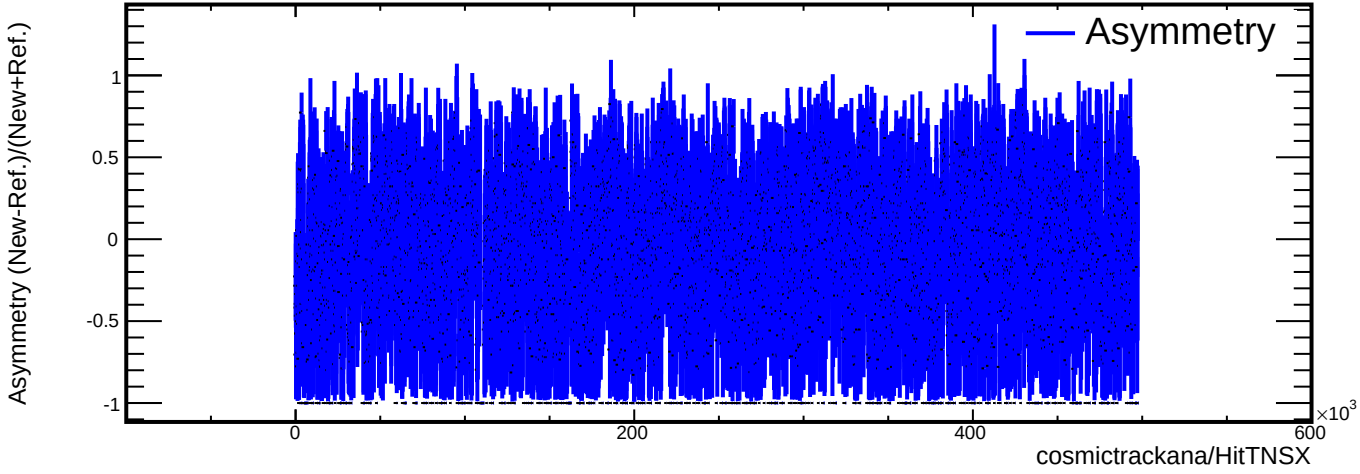

Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
cosmictrackana/hitYPosition

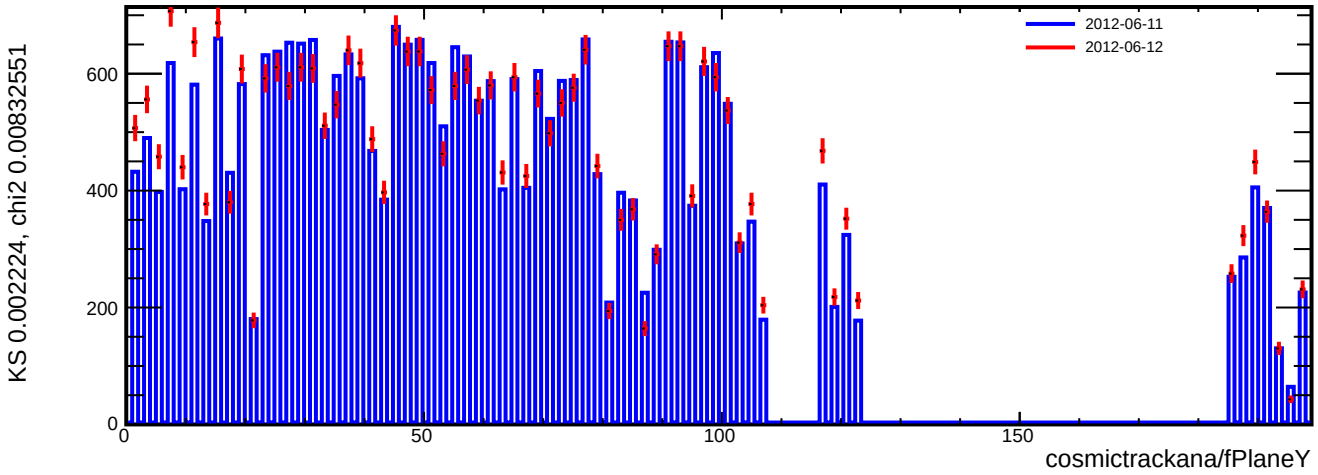

KS 0.000329237, chi2 0.00783354
2012-06-11
2012-06-12
0
200
400
600
0
500
1000
1500
cosmictrackana/hitZPosition
Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
0.2
0.1
0
-0.1
-0.2
-0.3
0
500
1000
1500
cosmictrackana/hitZPosition

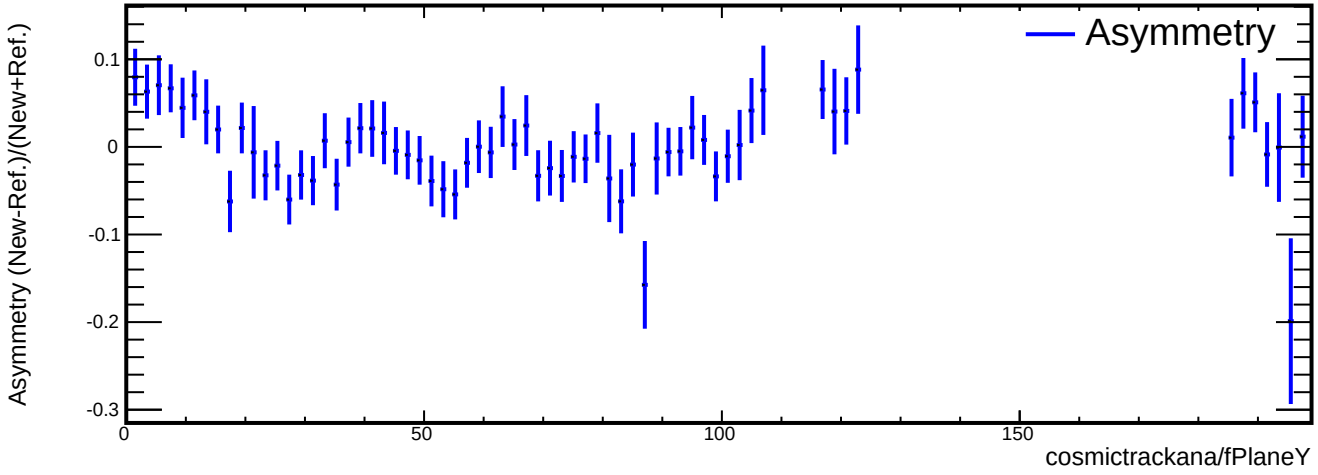

KS 0.00953154, chi2 0.268901
2012-06-11
2012-06-12
0
100
200
300
400
0
50
100
150
cosmictrackana/fPlaneX

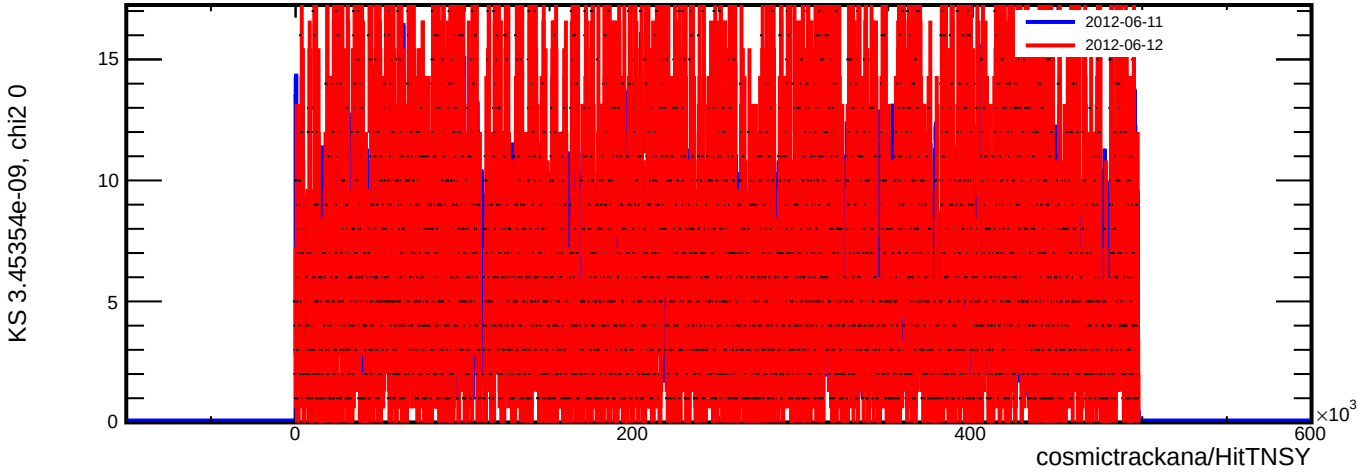

Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
0.1
0
-0.1
-0.2
-0.3
0
50
100
150
cosmictrackana/fPlaneX

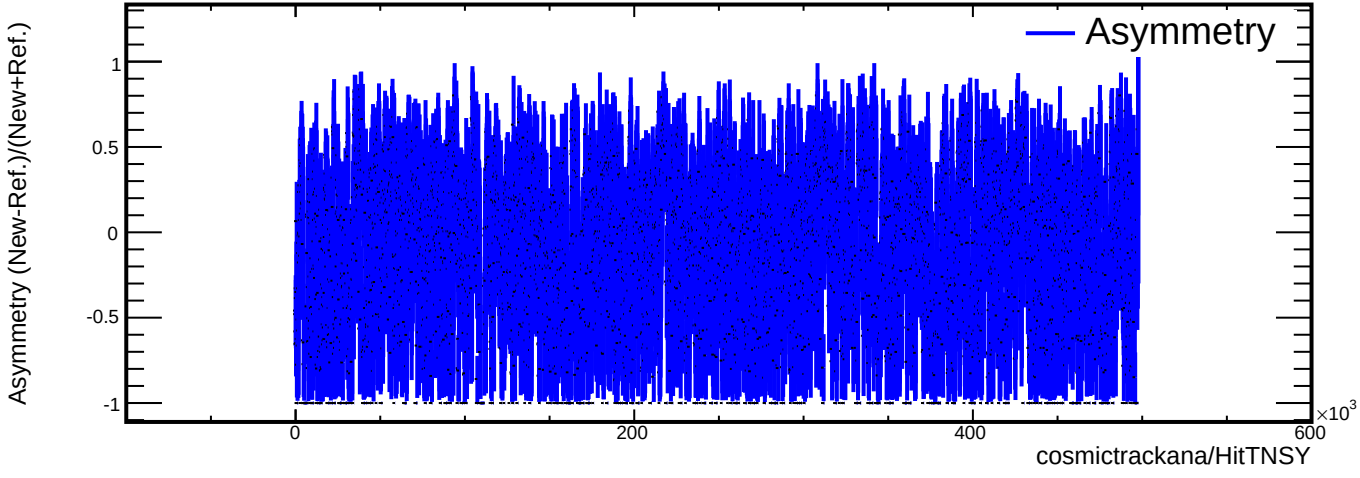

KS 2.50568e-07, chi2 9.2999e-212
2012-06-11
2012-06-12
0
2
4
6
8
10
12
0
200
400
600
×10^3
cosmictrackana/HitTNSX


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


KS 0.002224, chi2 0.00832551
2012-06-11
2012-06-12
0
200
400
600
0
50
100
150
cosmictrackana/fPlaneY


Asymmetry (New-Ref.)/(New+Ref.)
Asymmetry
0.1
0
-0.1
-0.2
-0.3
0
50
100
150
cosmictrackana/fPlaneY


KS 3.45354e-09, chi2 0
2012-06-11
2012-06-12
15
10
5
0
0
200
400
600
×10^3
cosmictrackana/HitTNSY


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