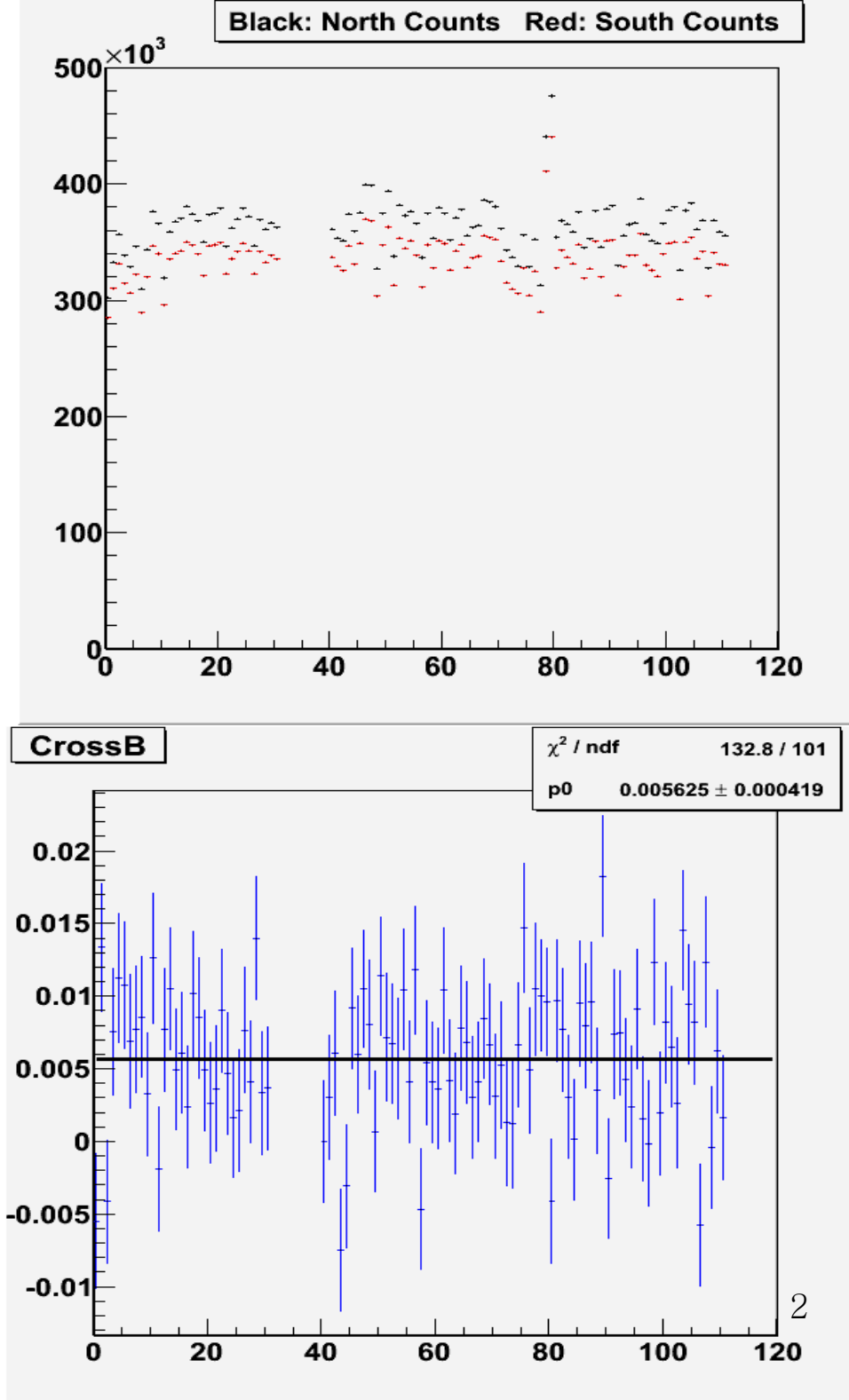
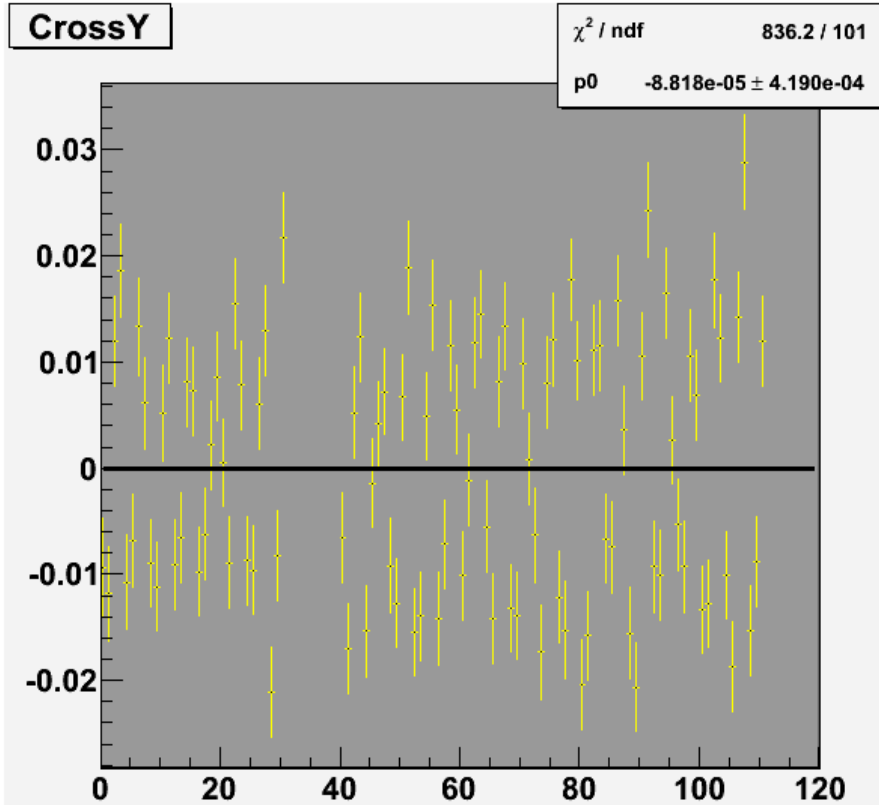


Events: 51 sets;
 JP2 triggers;
 N12=1;
 $3.25 < \text{Eta} < 4.05$;
 $\text{abs}(\cos(\phi)) > .5$

Top: Counts per bunch
 (Black:North Red: South)

Bottom Right: Blue Cross Ratio per
 Bunch

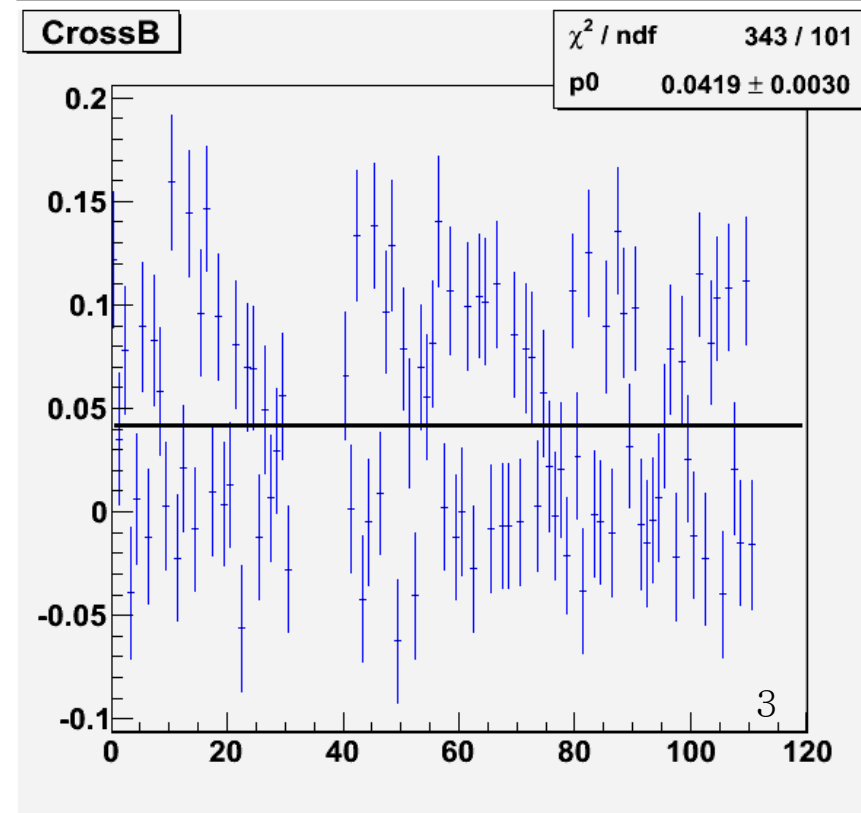
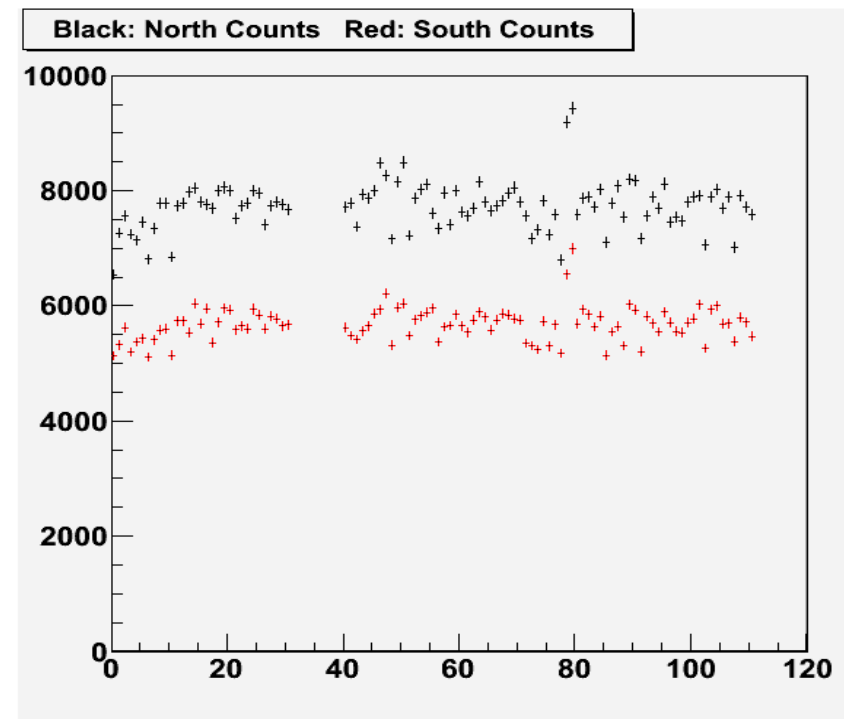
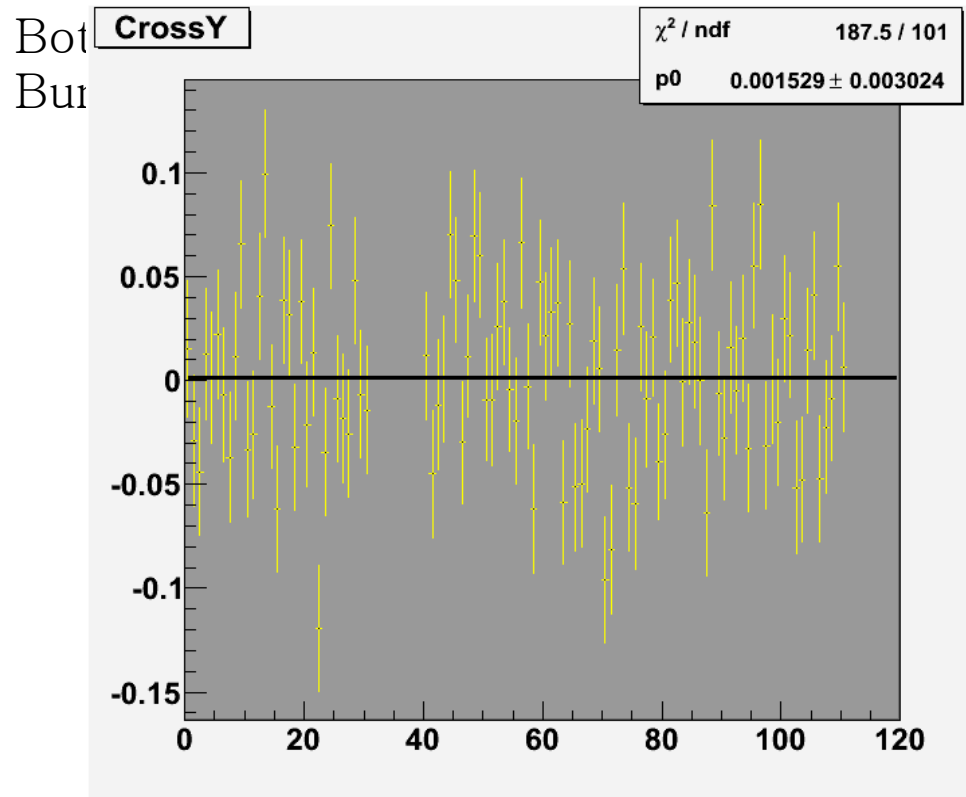
Bottom Left: Yellow Cross Ratio per



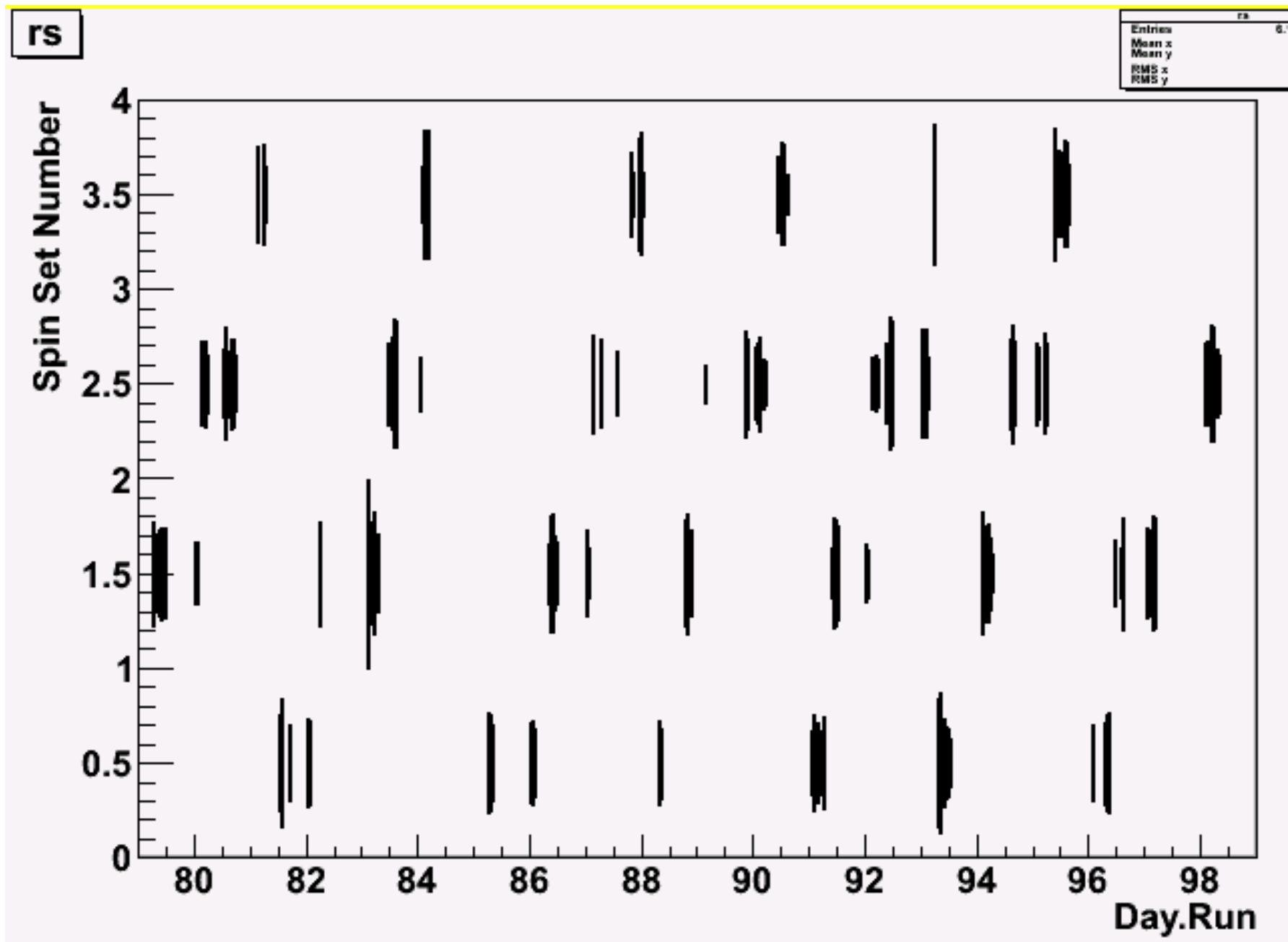
Events: 51 sets;
 JP2 triggers;
 N12=2;
 $.07 < M_{12} < .27 \text{ GeV}$;
 $E_{12} > 100 \text{ GeV}$;
 $3.25 < \text{Eta} < 4.05$;
 $\text{abs}(\cos(\phi)) > .5$

Top: Counts per bunch
 (Black:North Red: South)

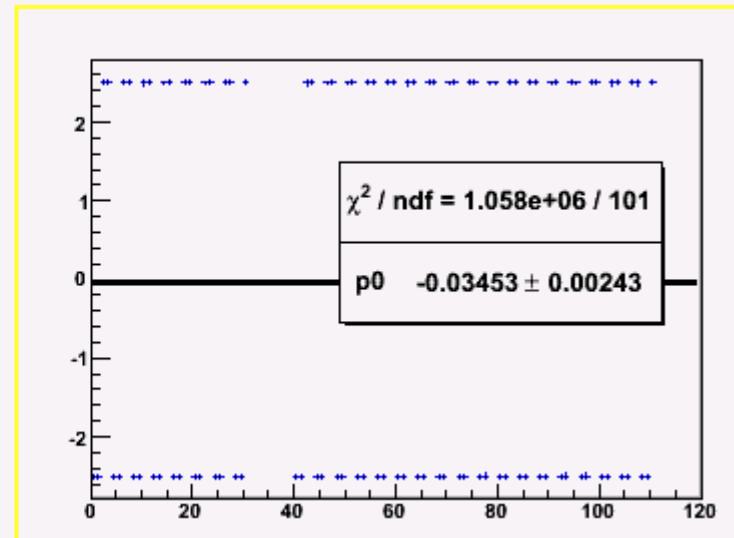
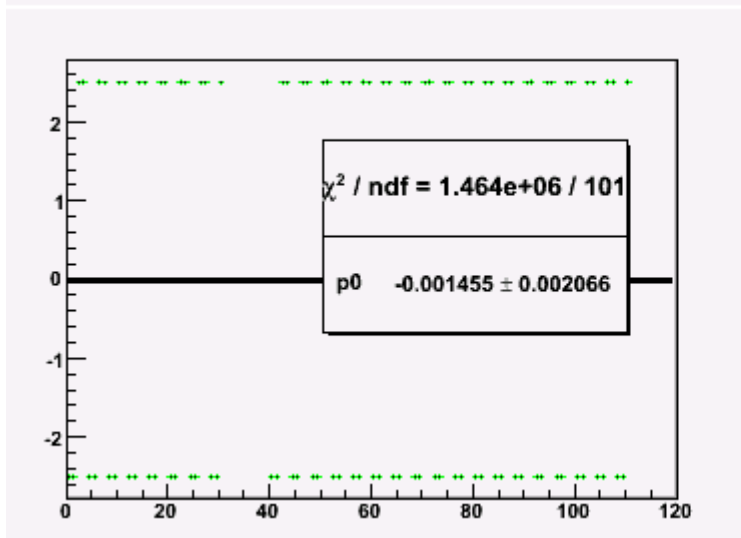
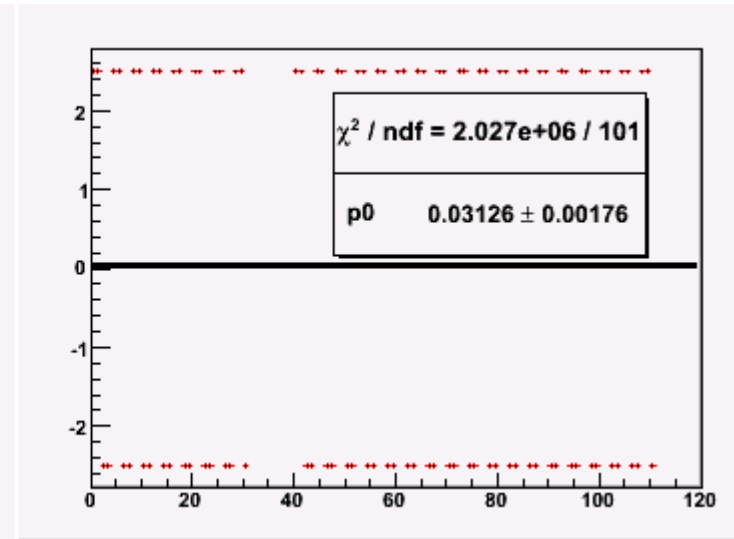
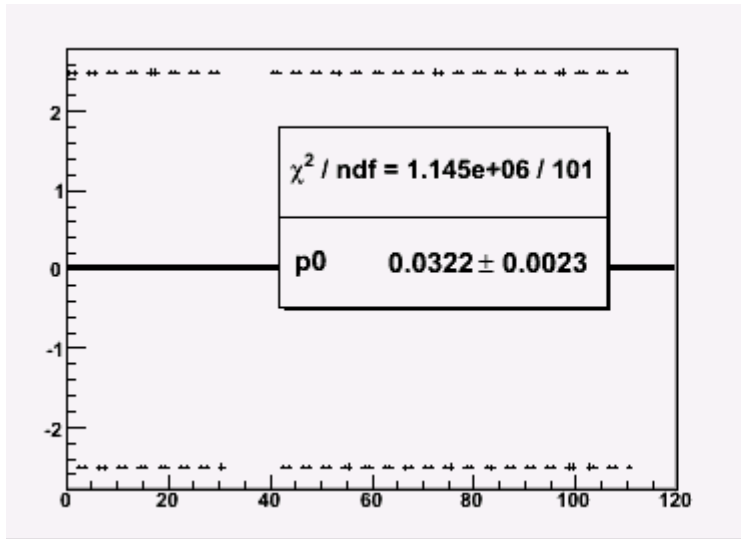
Bottom Right: Blue Cross Ratio per
 Bunch



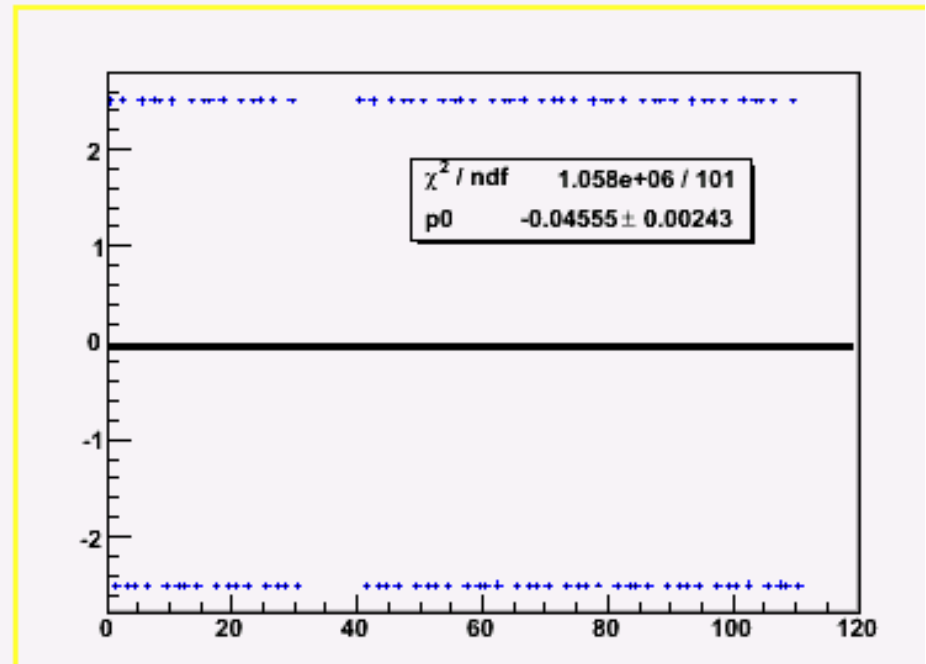
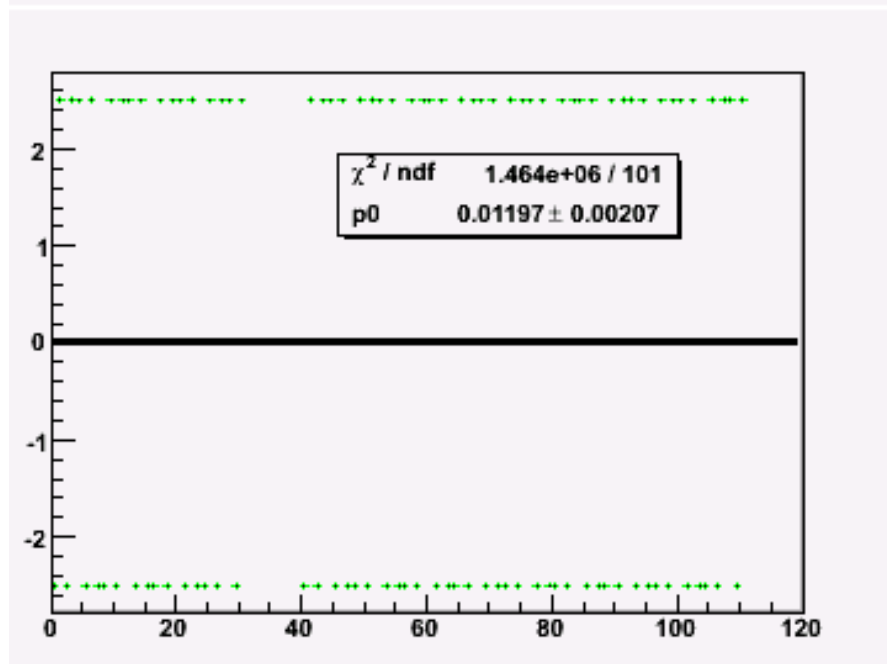
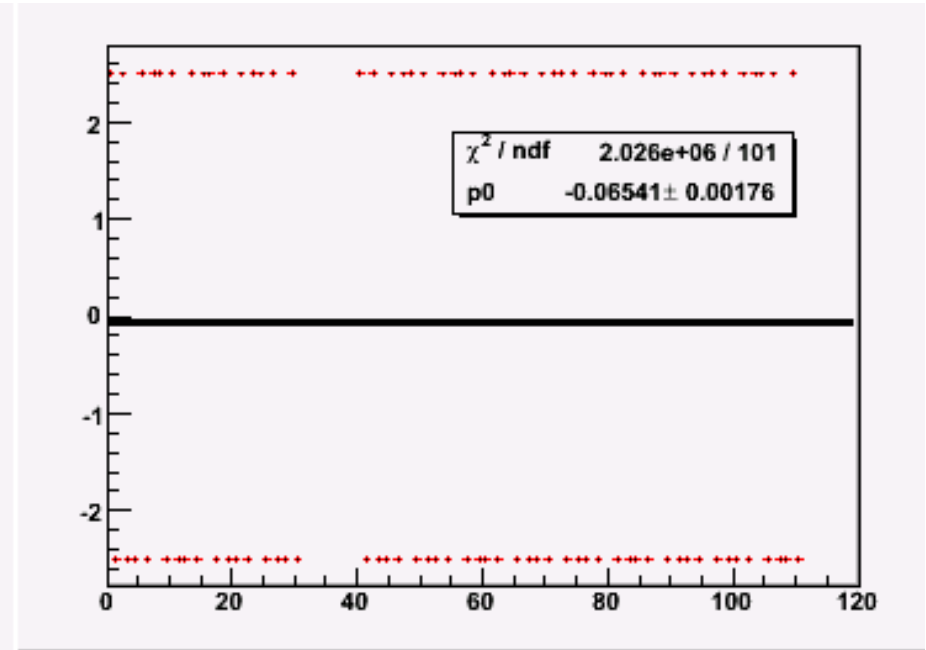
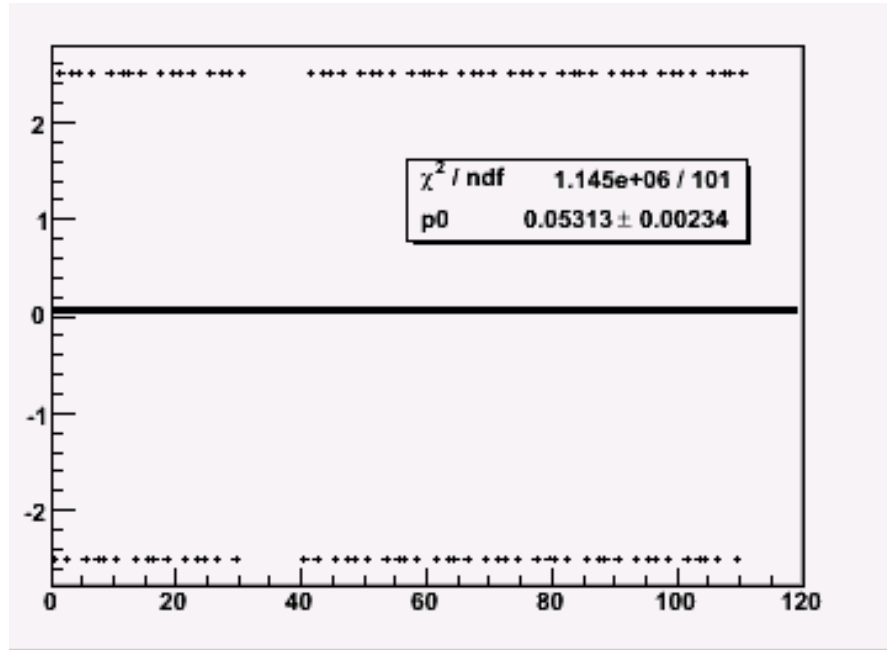
We ran with 4 spin patterns (numbered 0-3)
This is a plot of spin pattern number vs Day.Run number.
(All jetpath II triggers)



North – U/D Yellow Asymmetry vs Bunch
distribution
For each of 4 spin patterns

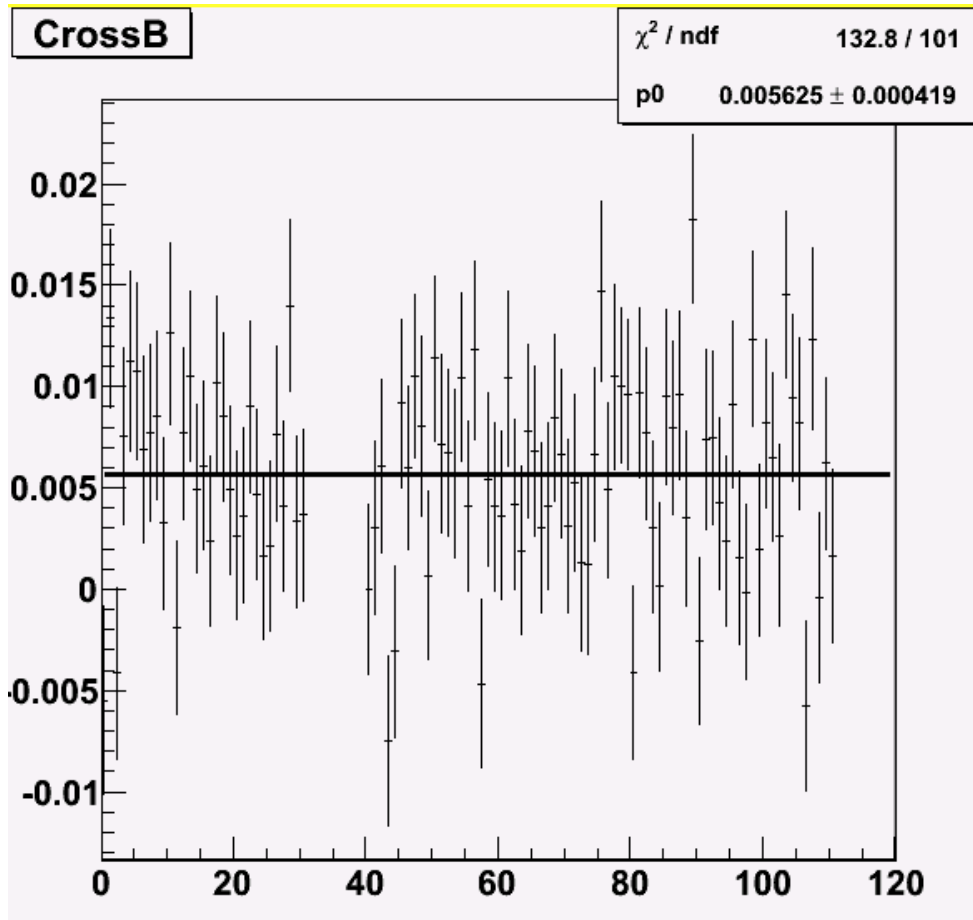


North – U/D Blue Asymmetry vs Bunch distribution
For each of 4 spin patterns

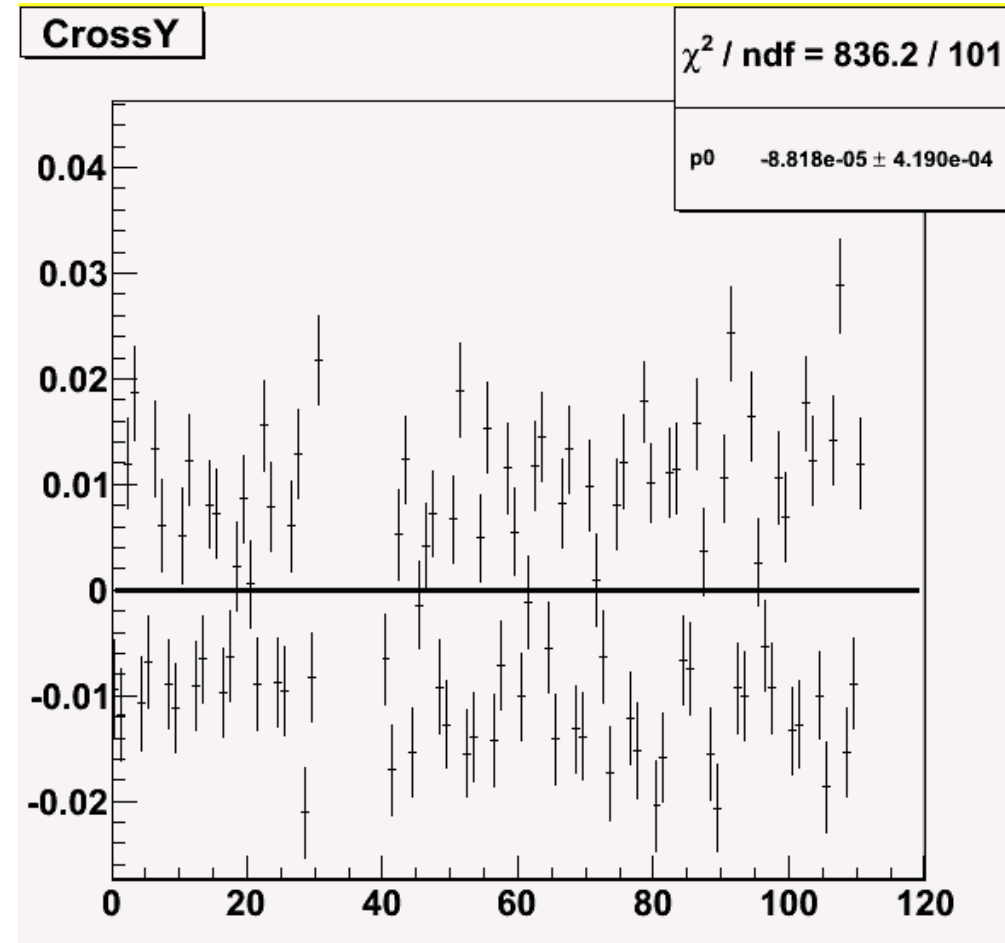


Calculate yellow and blue AN for:

$N12==1 \ \&\& \text{Abs}(\text{Eta}-3.65)<.4 \ \&\& \text{abs}(\cos(\text{Phi}))>.5 \ \&\& \text{Trig}==\text{JetPatch2}$



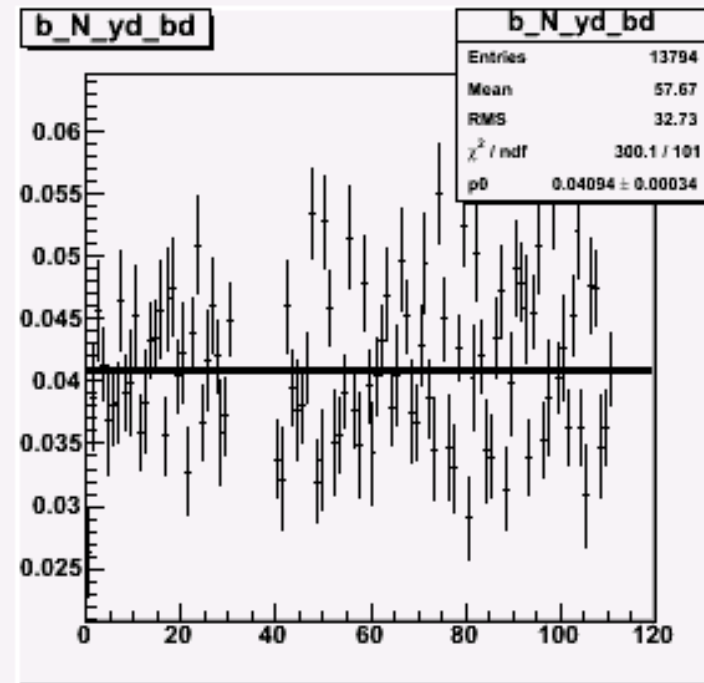
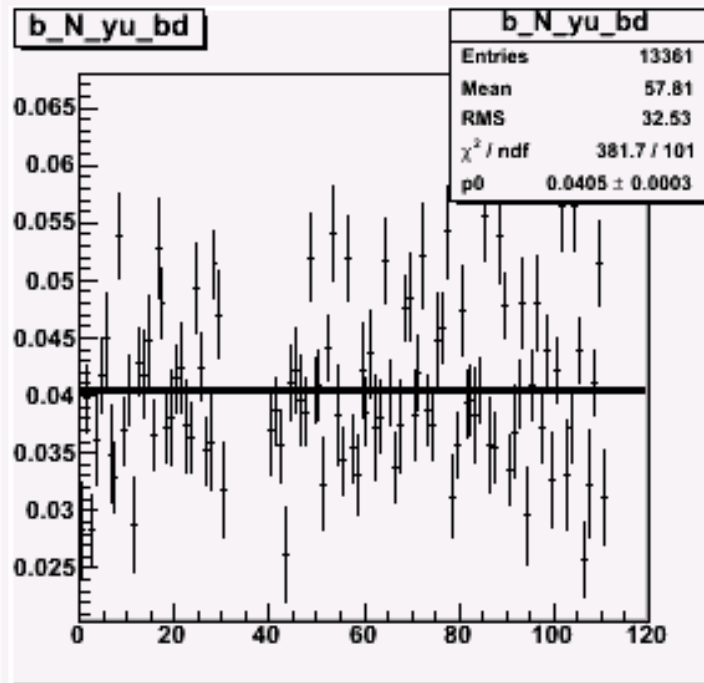
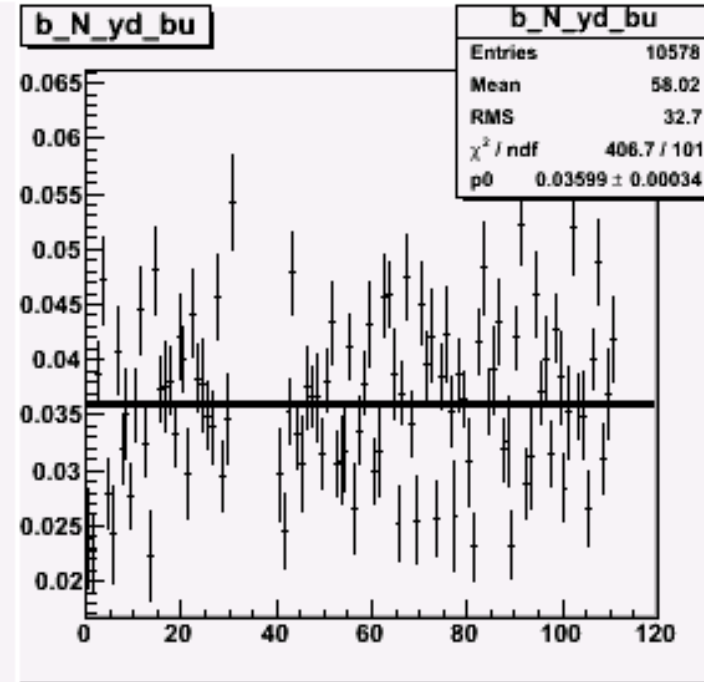
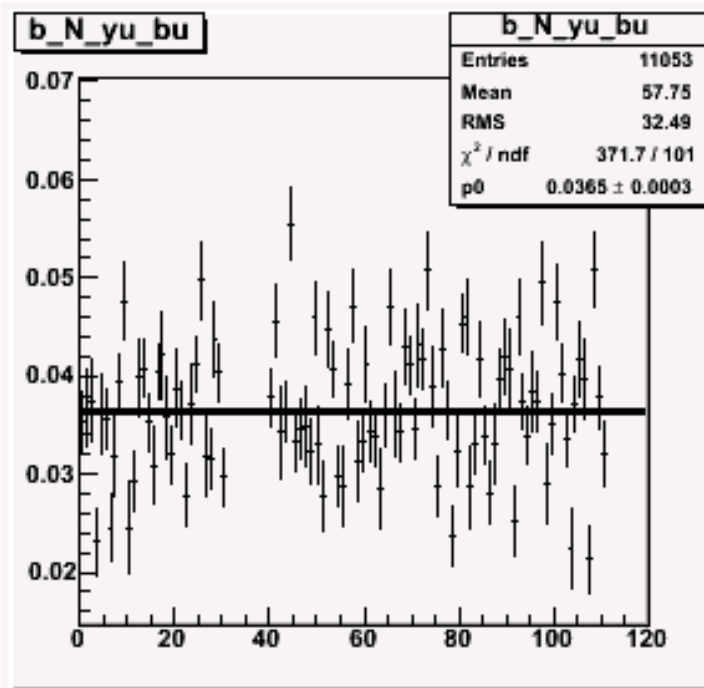
$A_{\text{blue}} = 0.56\% \pm 0.04\%$
 $\text{Chi2/Dof} = 132/101$



$A_{\text{yellow}} = -0.01\% \pm 0.04\%$
 $\text{Chi2/Dof} = 836/101$

(North-South)/(North+South):

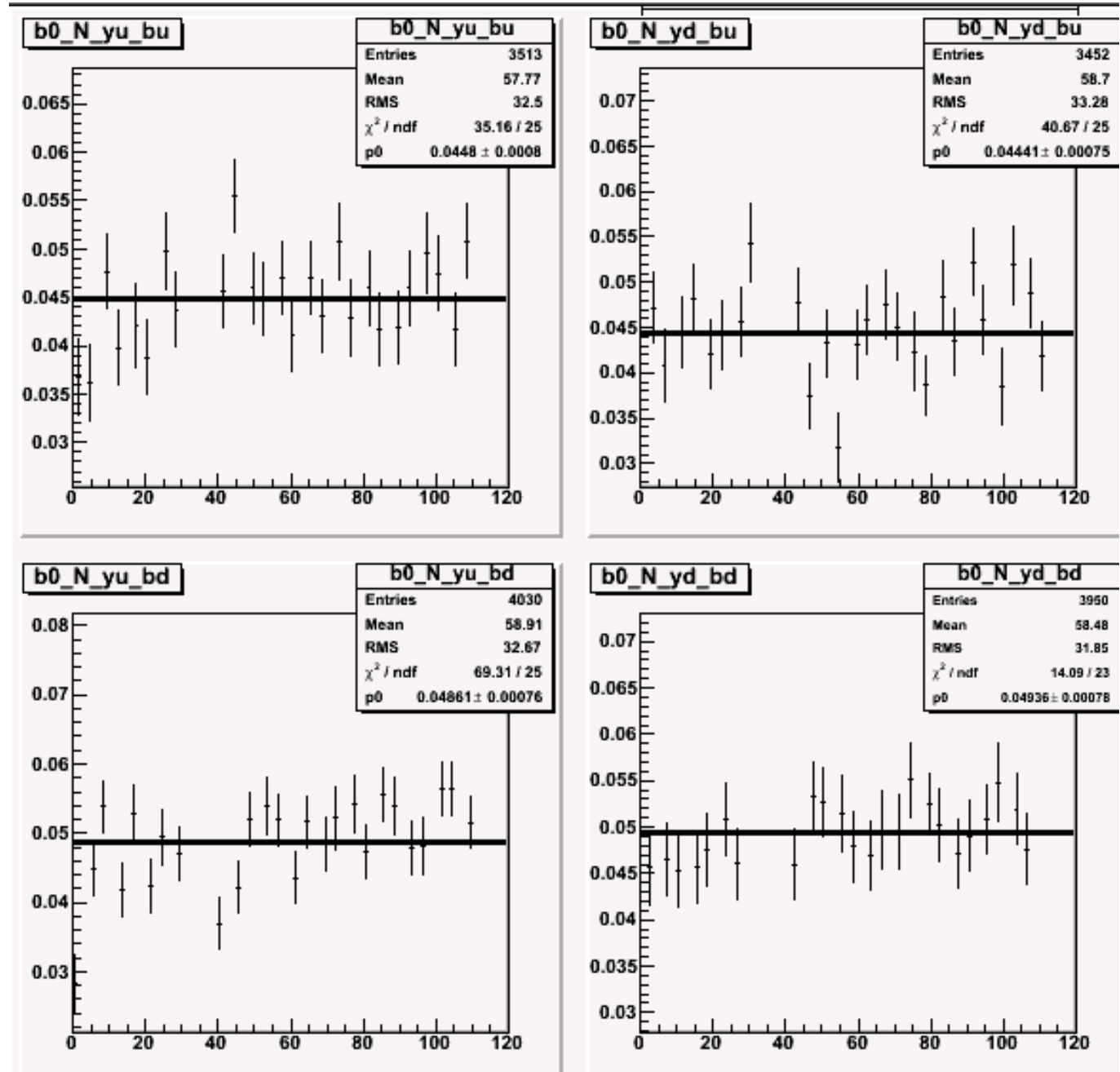
$N_{12}=1 \ \&\& \ |\eta-3.65|<0.4 \ \&\& \ |\cos(\Phi)|>0.5 \ \&\& \ \text{Trig}=\text{JetPatch2}$



(North-South)/(North+South):

$N_{12}=1 \ \&\& \ \text{Abs}(\text{Eta}-3.65)<.4 \ \&\& \ \text{abs}(\cos(\text{Phi}))>.5 \ \&\& \ \text{Trig}==\text{JetPatch2}$

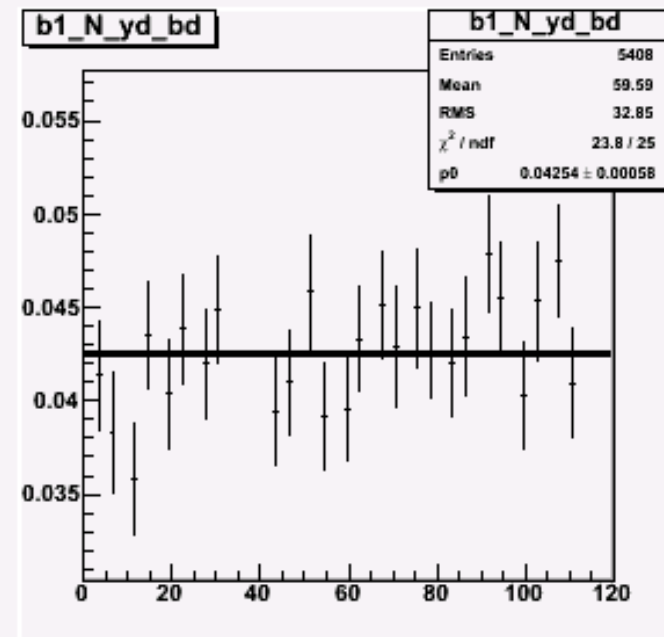
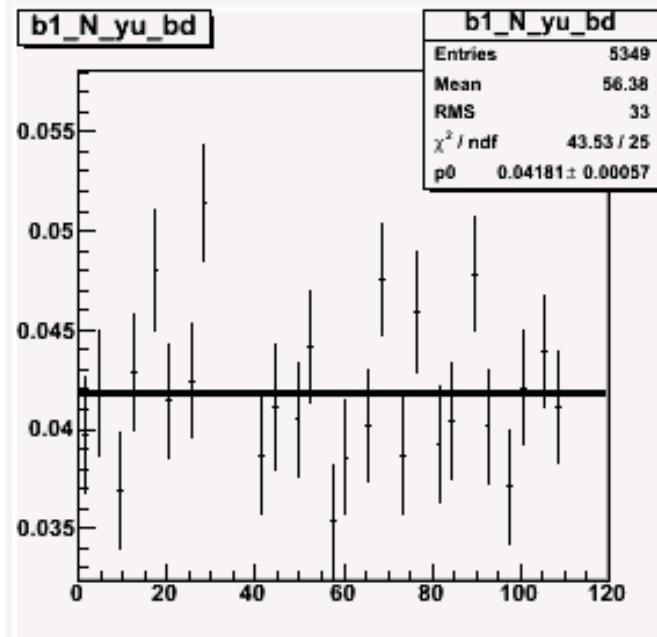
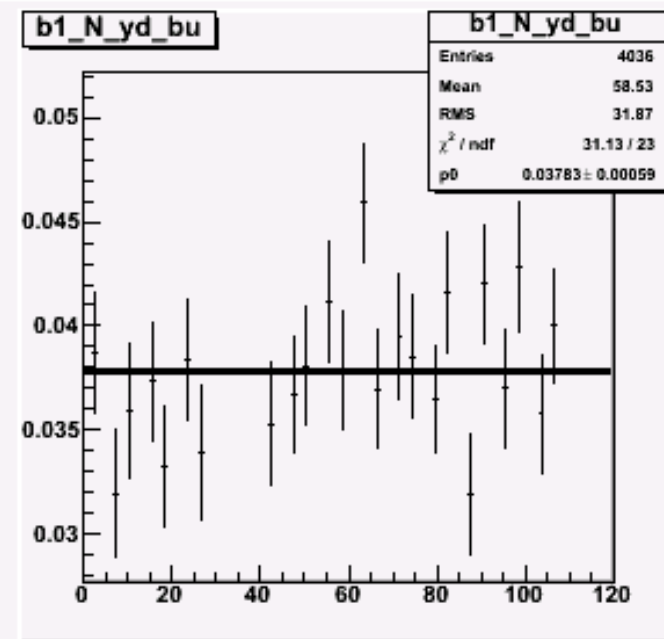
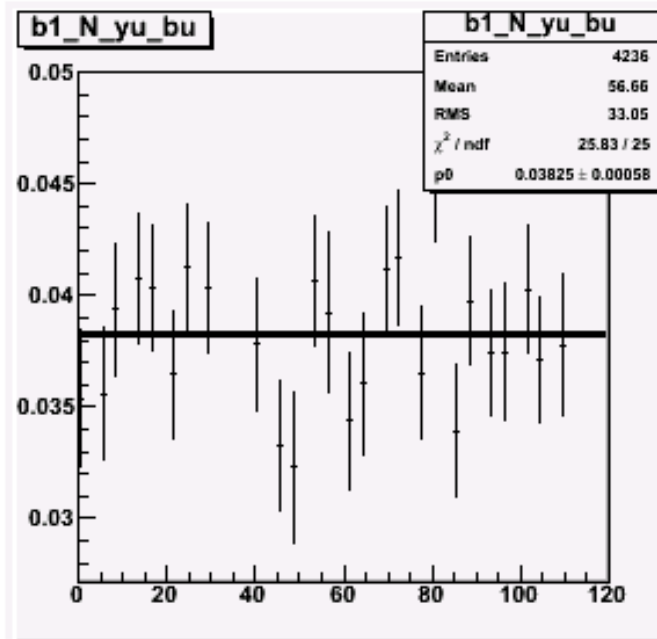
Spin Set 0



(North-South)/(North+South):

$N_{12}=1 \ \&\& \text{Abs}(\text{Eta}-3.65)<.4 \ \&\& \text{abs}(\cos(\text{Phi}))>.5 \ \&\& \text{Trig}==\text{JetPatch2}$

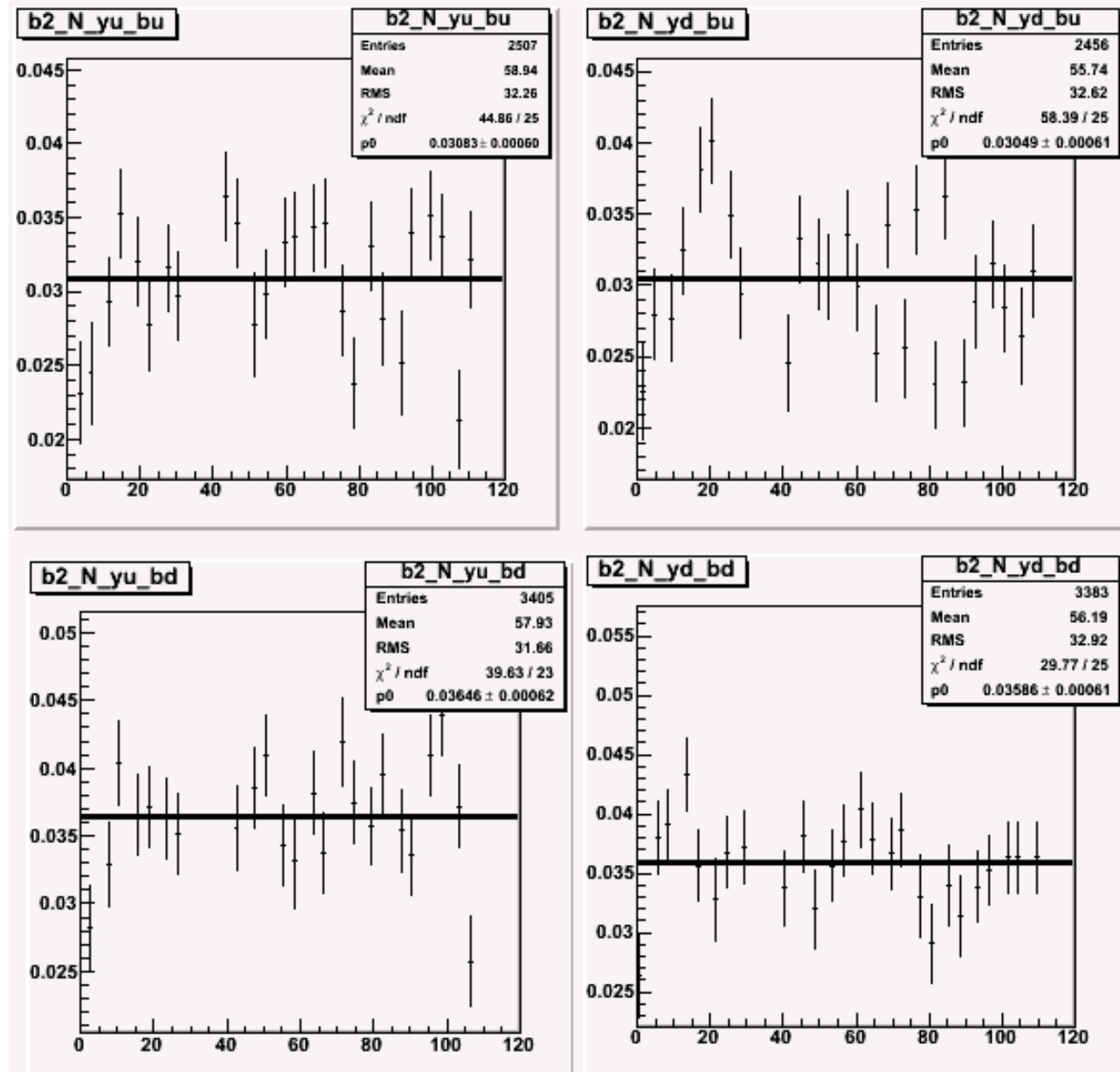
Spin Set 1



(North-South)/(North+South):

$N_{12}=1 \ \&\& \ \text{Abs}(\text{Eta}-3.65)<.4 \ \&\& \ \text{abs}(\cos(\text{Phi}))>.5 \ \&\& \ \text{Trig}==\text{JetPatch2}$

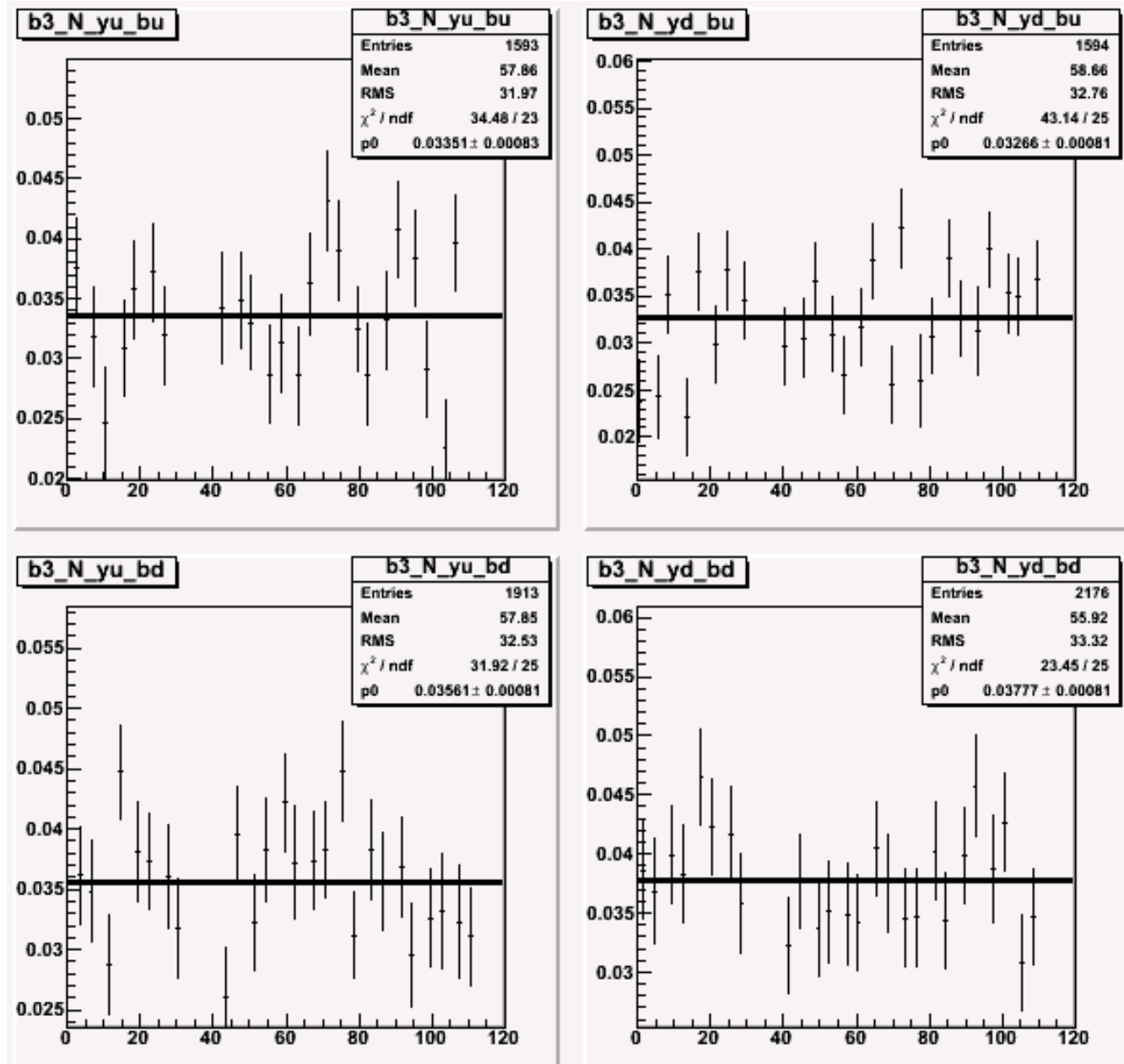
Spin Set 2



(North-South)/(North+South):

$N_{12}=1 \ \&\& \ \text{Abs}(\text{Eta}-3.65)<.4 \ \&\& \ \text{abs}(\cos(\text{Phi}))>.5 \ \&\& \ \text{Trig}==\text{JetPatch2}$

Spin Set 3



Comparison of Y and B Asymmetries from:

- Cross Ratio
- Left Right Asymmetry from each spin set.

$$A_{NS} = \frac{\# North - \# South}{\# North + \# South}$$

$$A_{Blue} = \frac{-1}{\langle |\cos(\phi)| \rangle} \frac{1}{P} \times \frac{(A_{NS\uparrow\uparrow}) + (A_{NS\downarrow\uparrow}) - (A_{NS\uparrow\downarrow}) - (A_{NS\downarrow\downarrow})}{4}$$

$$A_{Yellow} = \frac{-1}{\langle |\cos(\phi)| \rangle} \frac{1}{P} \times \frac{(A_{NS\uparrow\uparrow}) - (A_{NS\downarrow\uparrow}) + (A_{NS\uparrow\downarrow}) - (A_{NS\downarrow\downarrow})}{4}$$

Calculate yellow and blue AN for:

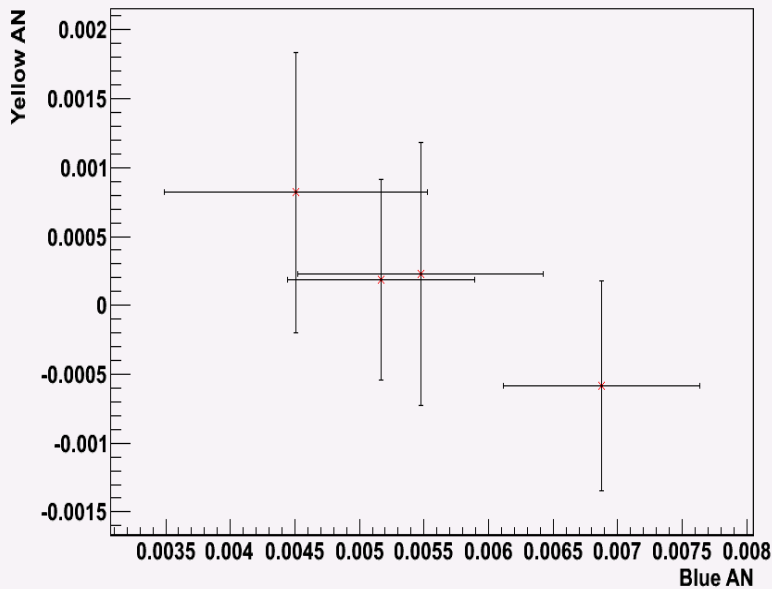
$N12==1 \ \&\& \text{Abs}(\text{Eta}-3.65)<.4 \ \&\& \text{abs}(\cos(\text{Phi}))>.5 \ \&\& \text{Trig}==\text{JetPatch2}$

Independent measurement for each of 4 spin sets.

All Energy from Trigger

Cross Blue = $.0056 \pm .0004$

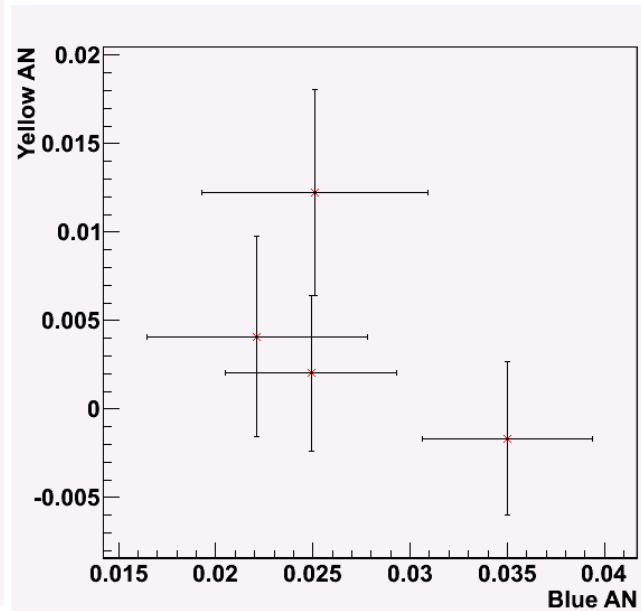
Cross Yellow= $.00008 \pm .0004$



Energy>100 GeV

Cross Blue = $.0287 \pm .0025$

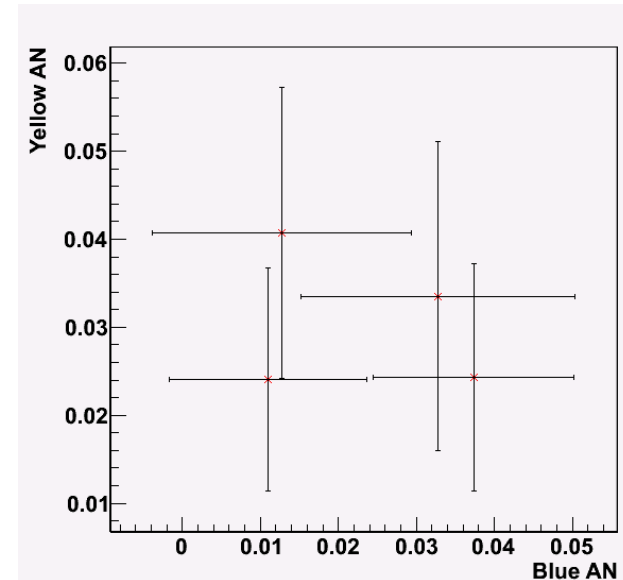
Cross Yellow= $.0041 \pm .0025$



Energy>150 GeV

Cross Blue = $.0315 \pm .006$

Cross Yellow= $.0390 \pm .006$



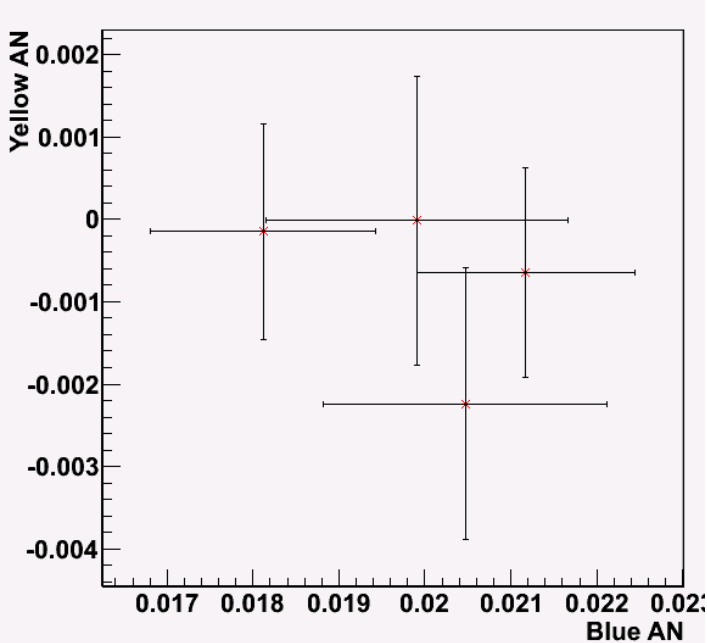
Calculate yellow and blue AN for:

$N_{12}==2 \ \&\& \text{Abs}(\text{Eta}-3.65)<.4 \ \&\& \text{abs}(\cos(\text{Phi}))>.5 \ \&\& \text{Trig}==\text{JetPatch2}$

Independent measurement for each of 4 spin sets.

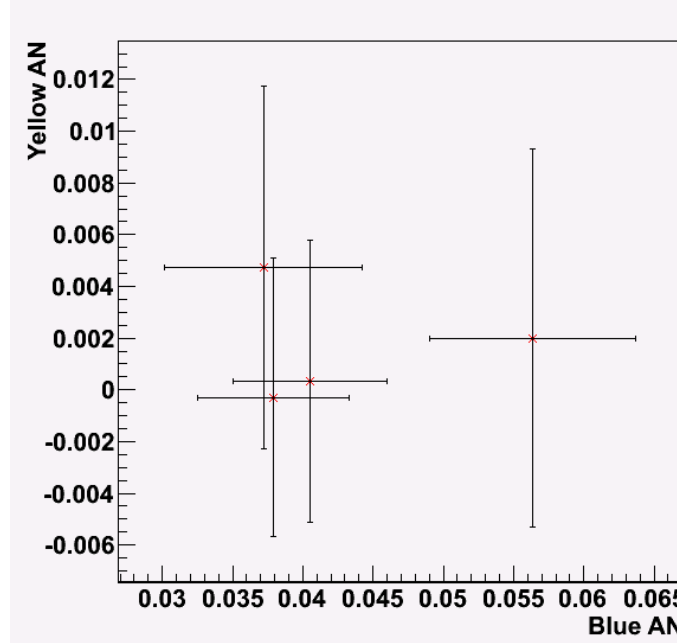
All Energy from Trigger

Cross Blue=.0198 $\pm$ 0.0007



Energy>100 GeV

Cross Blue=.042 $\pm$ 0.005



Energy>150 GeV

Cross Blue=.06.3 $\pm$.015

