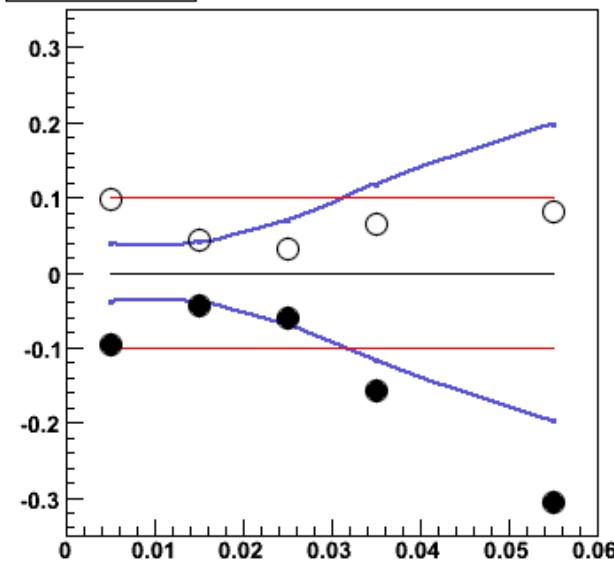
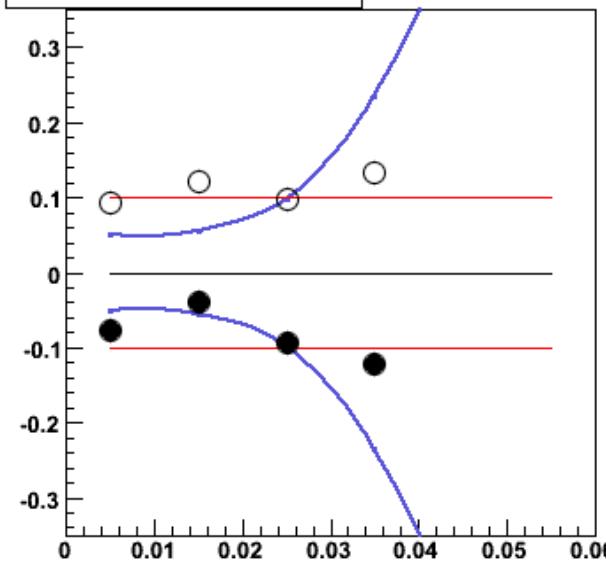


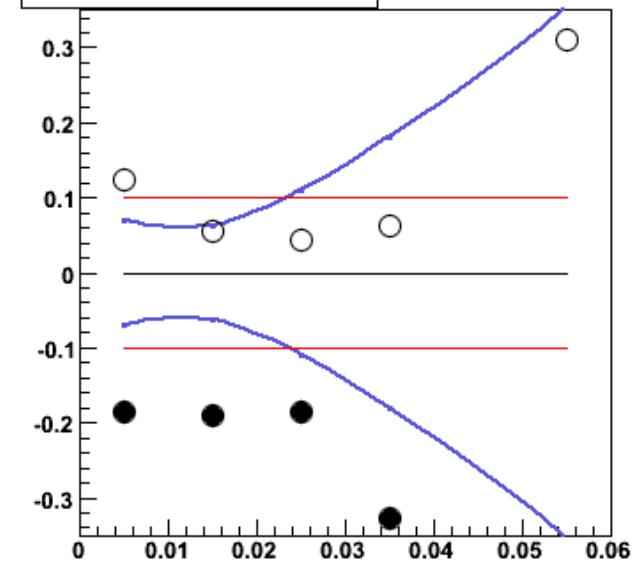
X_p^{obs} Overall



$X_p^{\text{obs}}, X_\gamma^{\text{meas}} > 0.8$ Overall



$X_p^{\text{obs}}, X_\gamma^{\text{meas}} < 0.7$ Overall



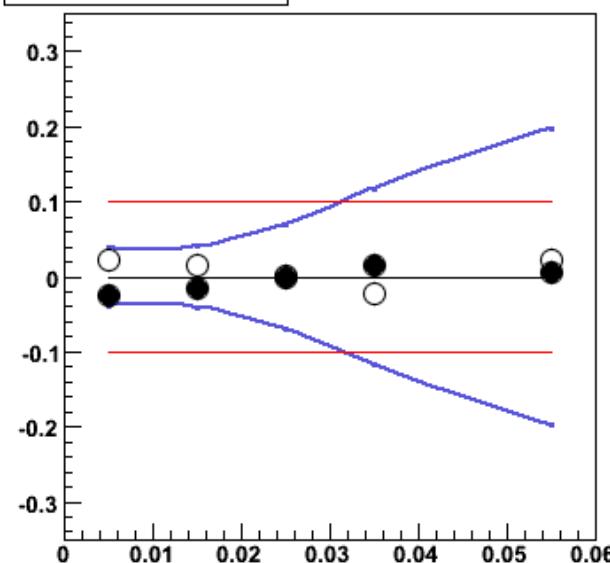
— Rel.statistical uncertainties

— 10% line

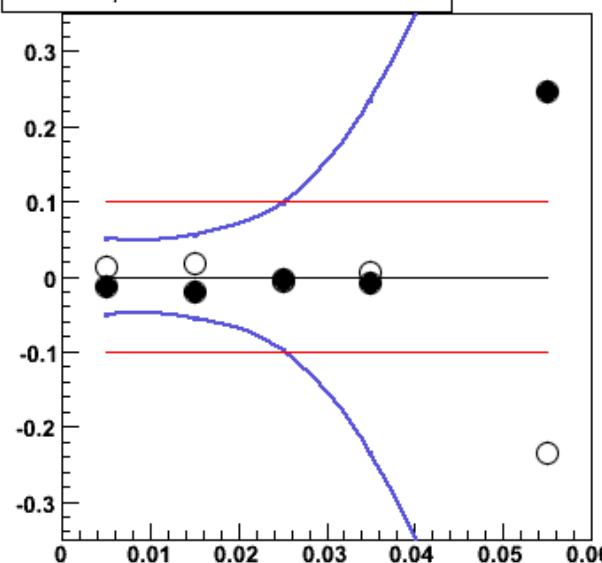
○ upper sum

● lower sum

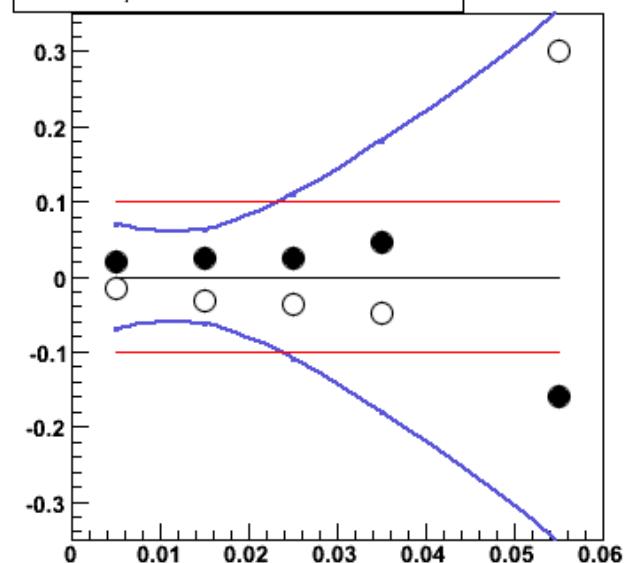
X_p^{obs} Dir / Res ratio



$X_p^{\text{obs}}, X_{\gamma}^{\text{meas}} > 0.8$ Dir / Res ratio



$X_p^{\text{obs}}, X_{\gamma}^{\text{meas}} < 0.8$ Dir / Res ratio



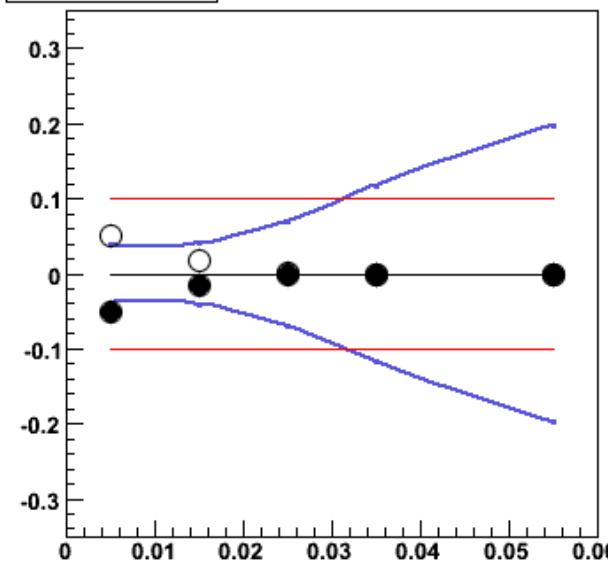
— Rel.statistical uncertainties

— 10% line

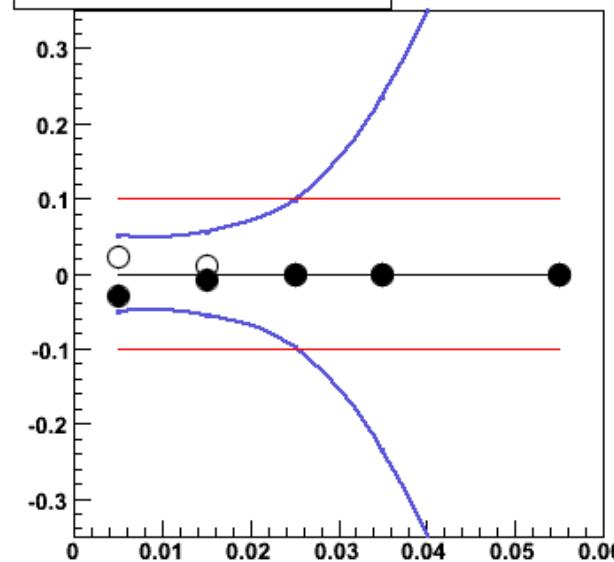
○ −15% resolved

● +15% resolved

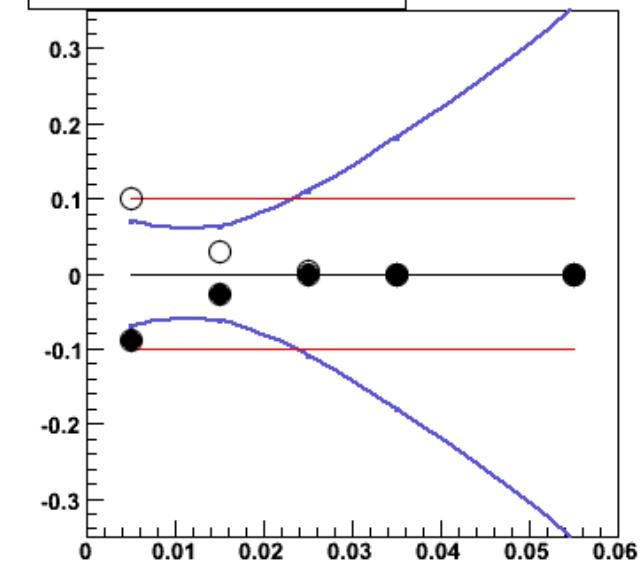
X_p^{obs} UncorJE



$X_p^{\text{obs}}, X_{\gamma}^{\text{meas}} > 0.8$ UncorJE



$X_p^{\text{obs}}, X_{\gamma}^{\text{meas}} < 0.8$ UncorJE



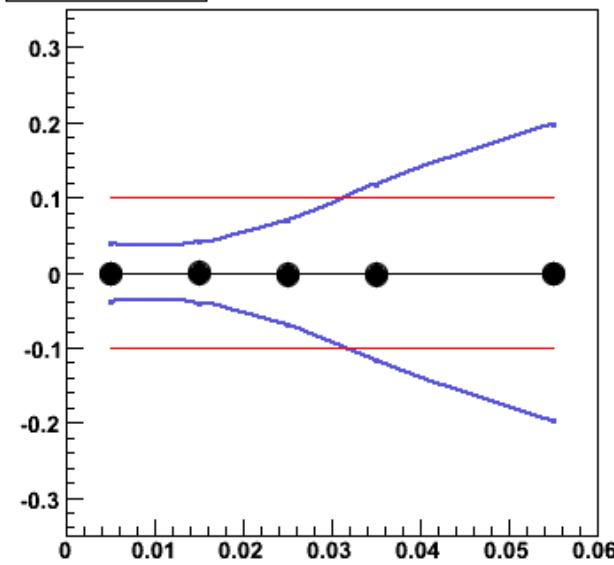
— Rel.statistical uncertainties

— 10% line

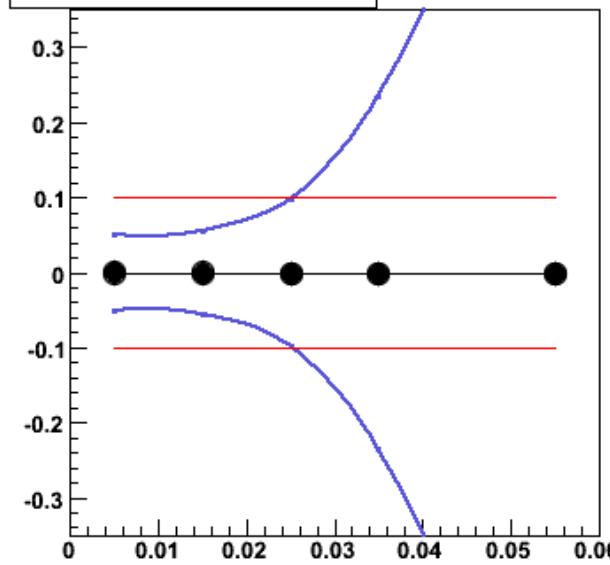
○ variation up

● variation down

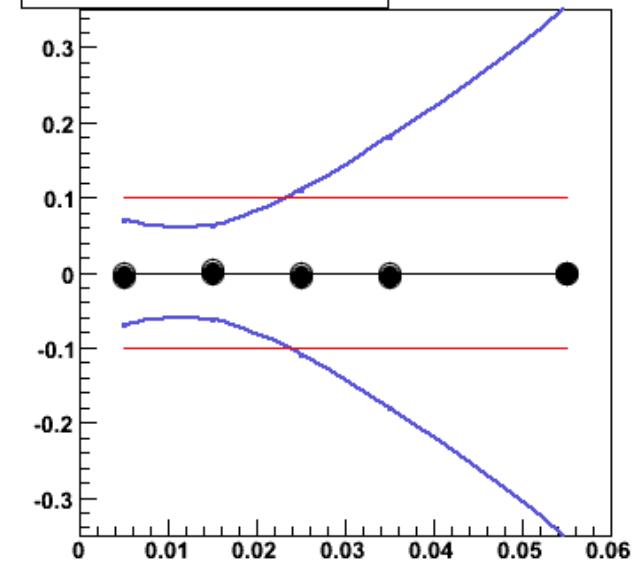
X_p^{obs} Z-Vertex



$X_p^{\text{obs}}, X_{\gamma}^{\text{meas}} > 0.8$ Z-Vertex



$X_p^{\text{obs}}, X_{\gamma}^{\text{meas}} < 0.8$ Z-Vertex



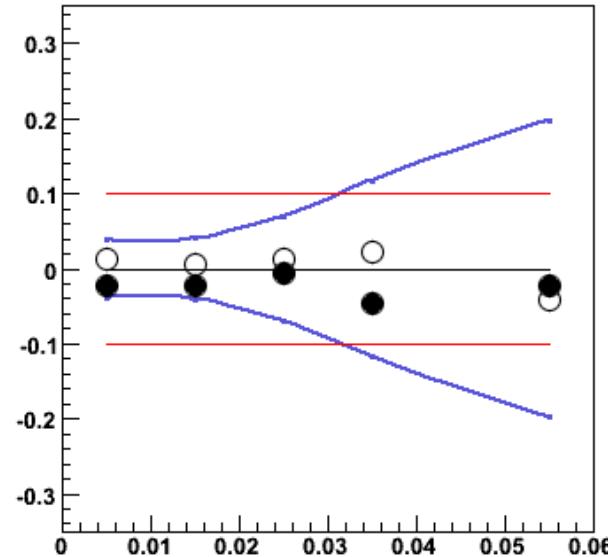
— Rel.statistical uncertainties δZ

— 10% line

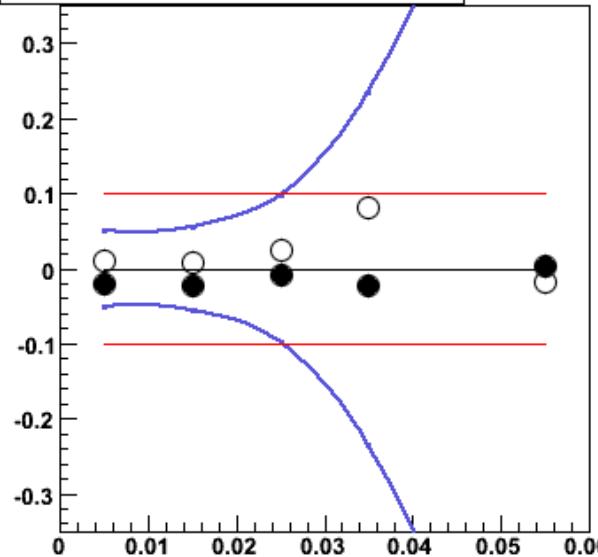
○ $|Z_{\text{vertex}}| < 45$

● $|Z_{\text{vertex}}| < 35$

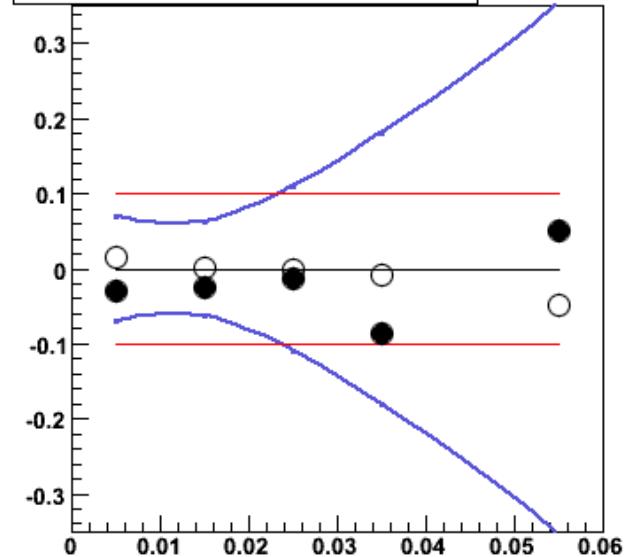
X_p^{obs} Track Magnitude



$X_p^{\text{obs}}, X_{\gamma}^{\text{meas}} > 0.8$ Track Magnitude



$X_p^{\text{obs}}, X_{\gamma}^{\text{meas}} < 0.8$ Track Magnitude



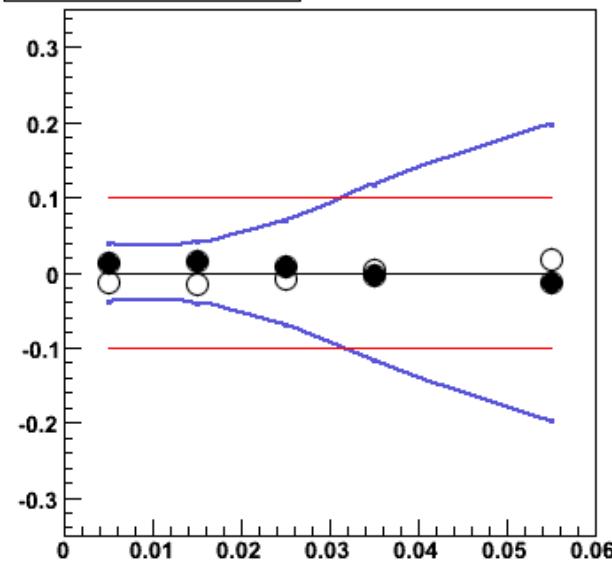
— Rel.statistical uncertainties

— 10% line

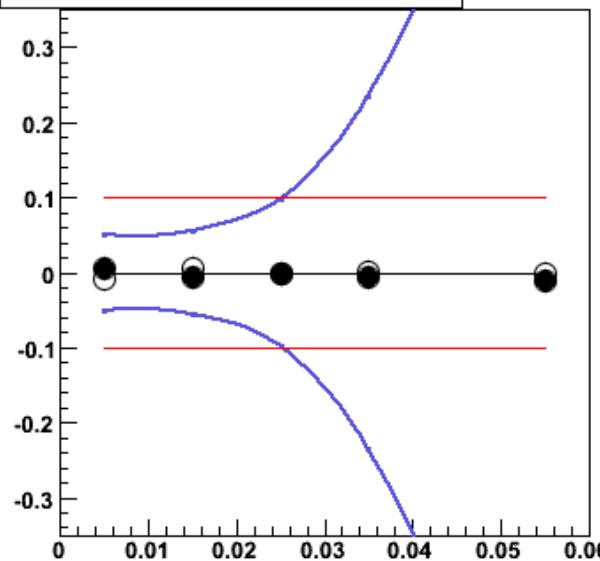
○ $p_{\text{track}} > 350 \text{ MeV}$

● $p_{\text{track}} > 150 \text{ MeV}$

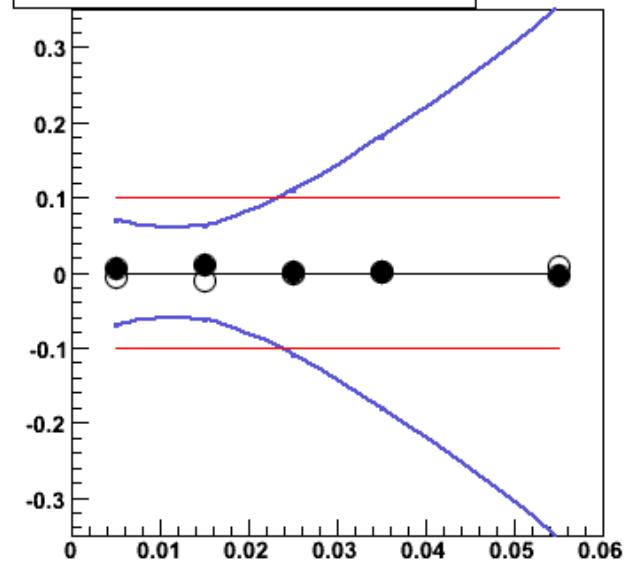
X_p^{obs} Fragmentation



$X_p^{\text{obs}}, X_{\gamma}^{\text{meas}} > 0.8$ Fragmentation



$X_p^{\text{obs}}, X_{\gamma}^{\text{meas}} < 0.8$ Fragmentation



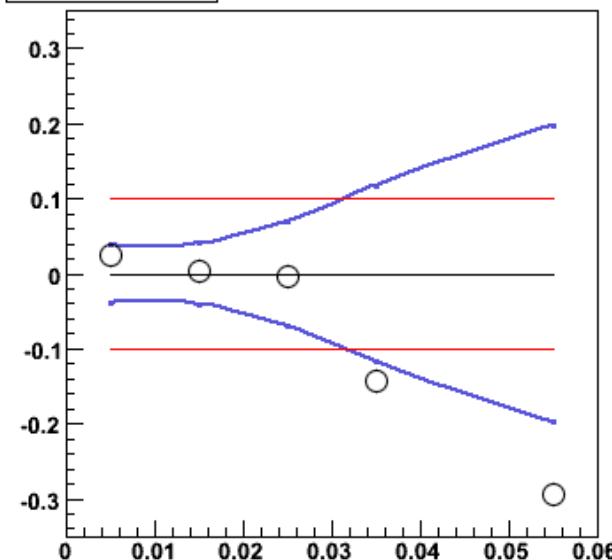
— Rel.statistical uncertainties

— 10% line

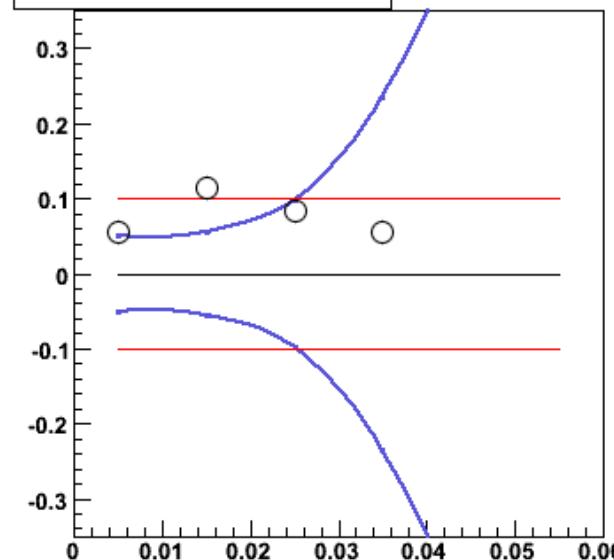
○ +5% Fragmentation

● -5% Fragmentation

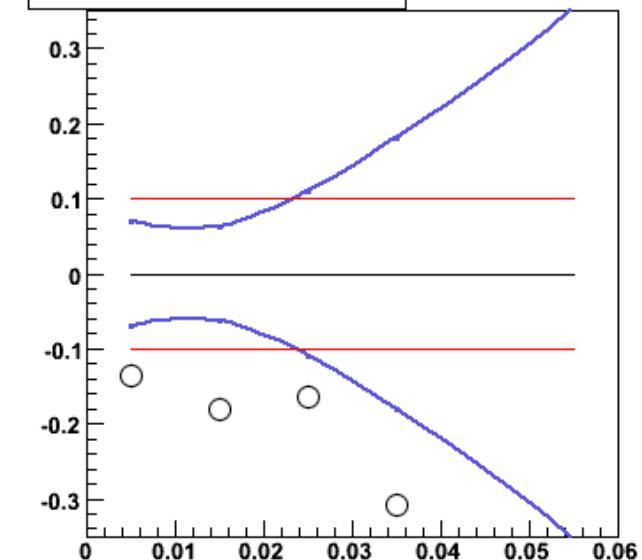
X_p^{obs} HERWIG



$X_p^{\text{obs}}, X_\gamma^{\text{meas}} > 0.8$ HERWIG



$X_p^{\text{obs}}, X_\gamma^{\text{meas}} < 0.8$ HERWIG

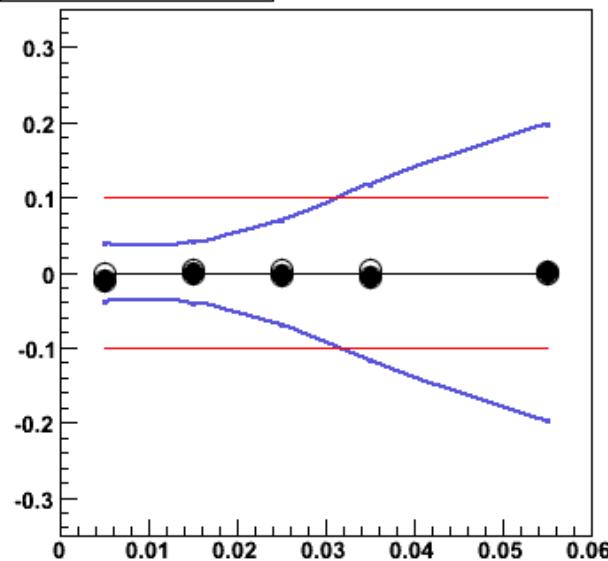


— Rel.statistical uncertainties

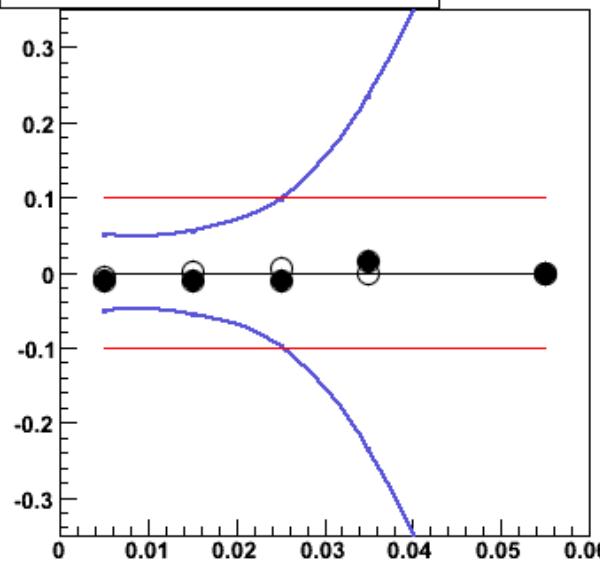
— 10% line

○ HERWIG

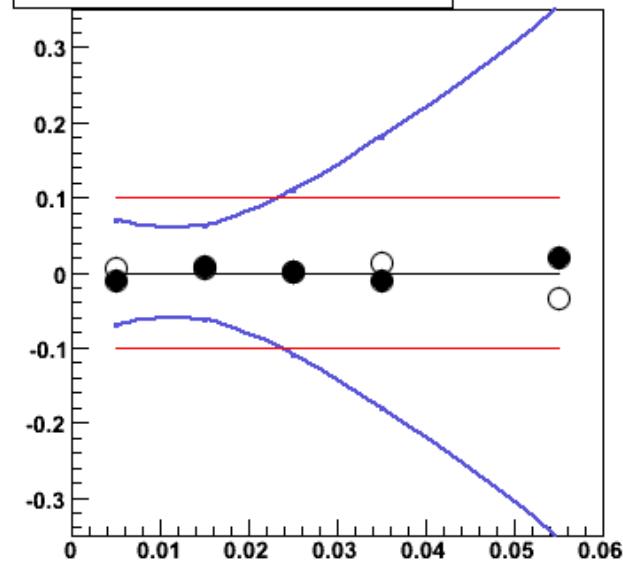
X_p^{obs} fraction EMC



$X_p^{\text{obs}}, X_{\gamma}^{\text{meas}} > 0.8$ fraction EMC



$X_p^{\text{obs}}, X_{\gamma}^{\text{meas}} < 0.8$ fraction EMC



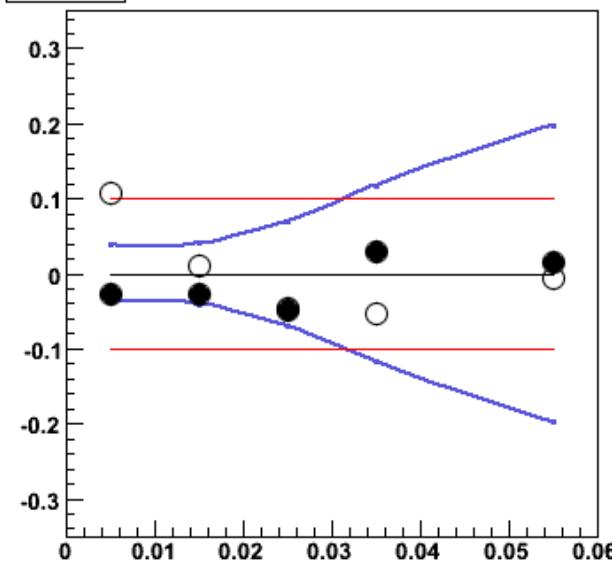
— Rel.statistical uncertainties

— 10% line

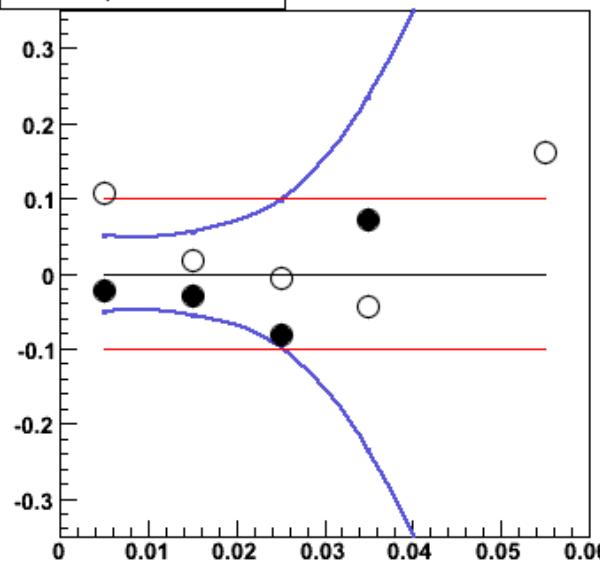
○ Fraction EMC +0.025

● Fraction EMC -0.025

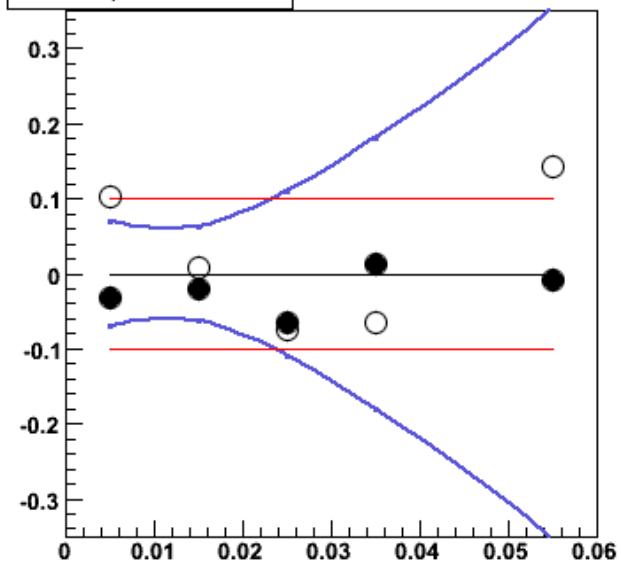
X_p^{obs} E_{γ}



$X_p^{\text{obs}}, X_{\gamma}^{\text{meas}} > 0.8 E_{\gamma}$



$X_p^{\text{obs}}, X_{\gamma}^{\text{meas}} < 0.8 E_{\gamma}$



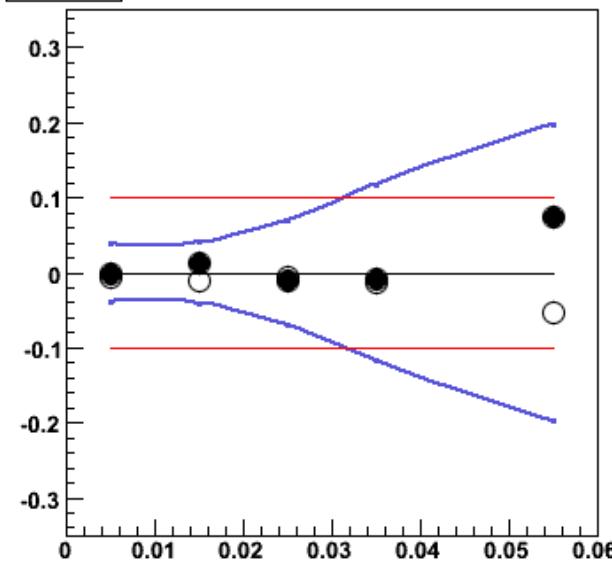
— Rel.statistical uncertainties

— 10% line

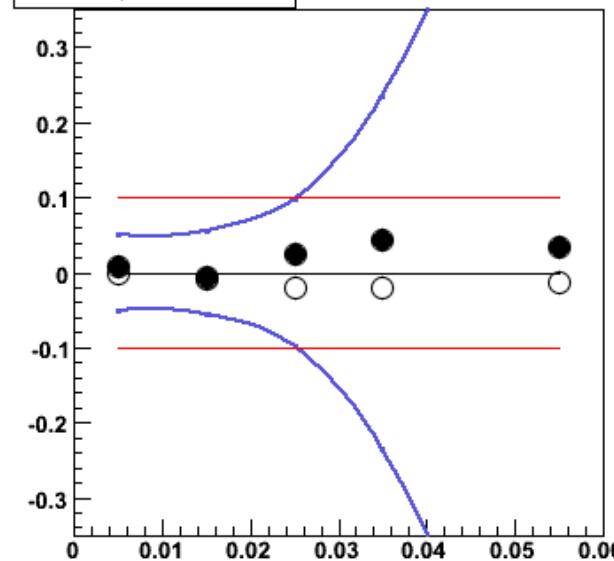
○ $E_{\gamma} + 2\%$

● $E_{\gamma} - 2\%$

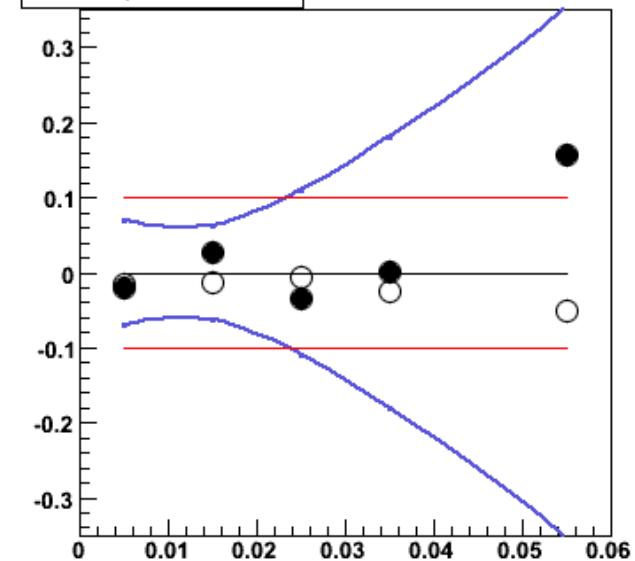
$X_p^{\text{obs}} \delta Z$



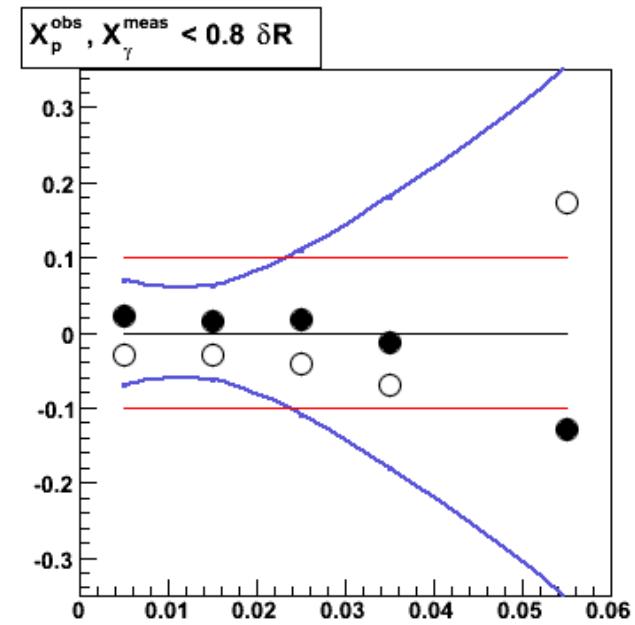
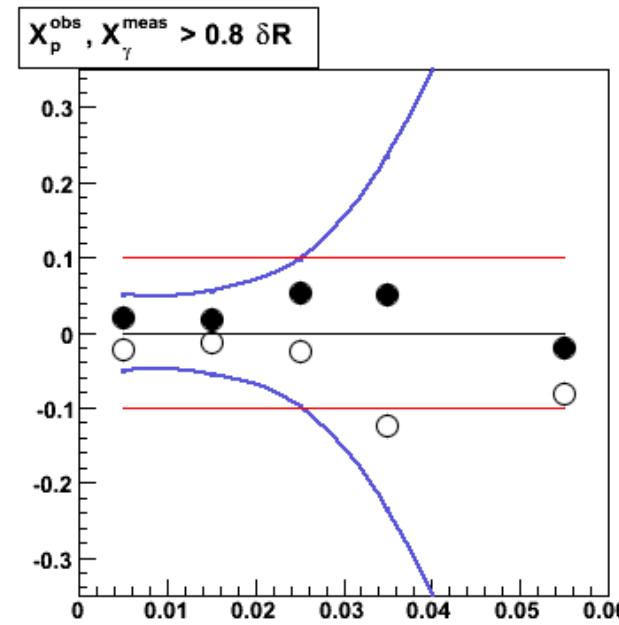
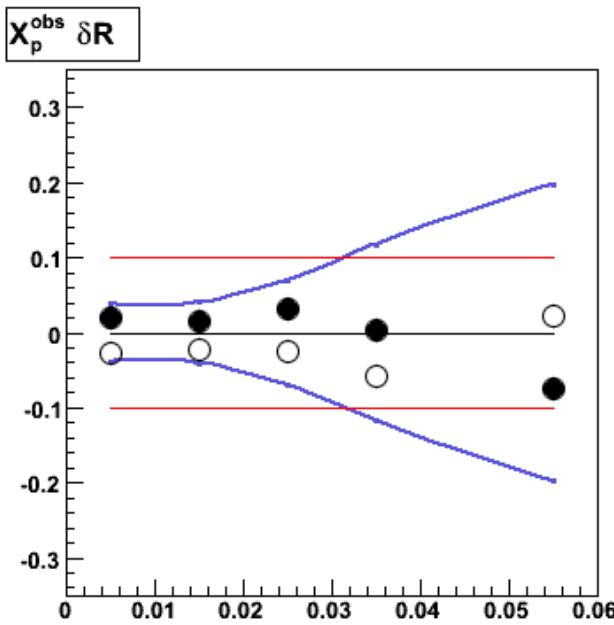
$X_p^{\text{obs}}, X_{\gamma}^{\text{meas}} > 0.8 \delta Z$



$X_p^{\text{obs}}, X_{\gamma}^{\text{meas}} < 0.8 \delta Z$



- Rel.statistical uncertainties δZ
- 10% line
- δZ fit range 1.0
- δZ fit range 0.6



— Rel.statistical uncertainties

— 10% line

○ δR 0.3

● $\delta R \ 0.1$