

KaonLT Meeting

July 11th, 2024

Richard Trotta

$$\sigma_L = (p_1 + p_2 \log Q^2) e^{p_3 | -t|}$$

$$\sigma_T = (p_5 \left(\frac{| -t|}{Q^2} - 1 \right)) e^{p_6 | -t|}$$

Separated Response Functions in
Exclusive, Forward π^\pm Electroproduction on Deuterium

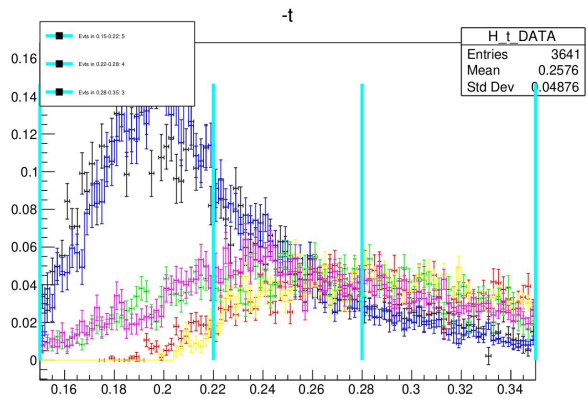
[arXiv:1412.5140v1](https://arxiv.org/abs/1412.5140v1) [nucl-ex] 16 Dec 2014

[5.5]

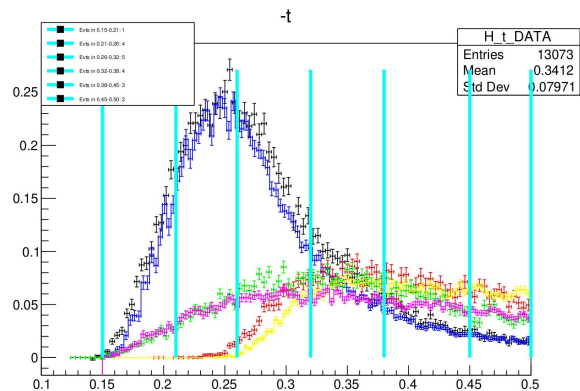
$$\sigma_{LT} = g(W) \cdot (p_9 e^{p_{10} | -t|} + \frac{p_{11}}{| -t|}) \cdot \sin \theta_{CM}. \quad [5.6]$$

$$\sigma_{TT} = g(W) \cdot (f(t) \cdot \frac{p_{12}}{Q^2} e^{-Q^2}) \cdot \sin^2 \theta_{CM}, \quad [5.7]$$

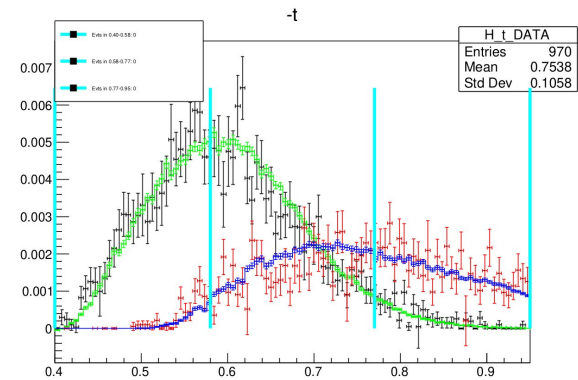
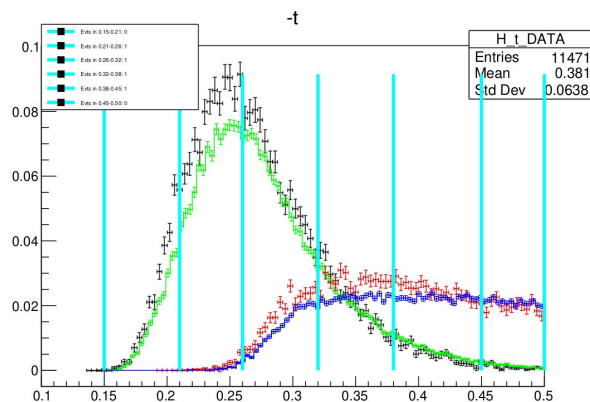
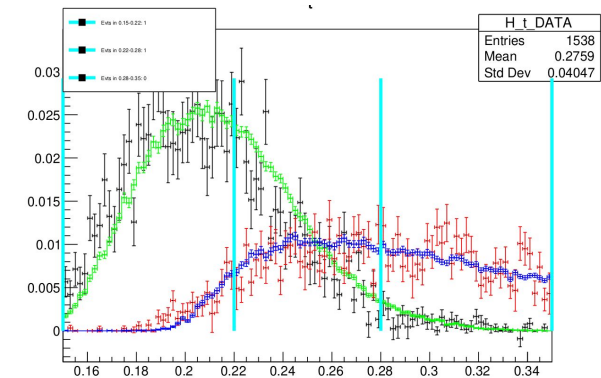
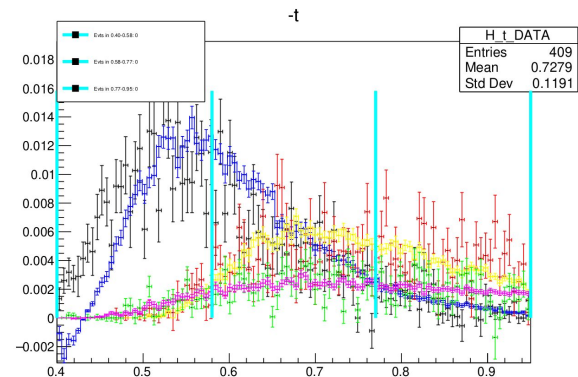
$Q^2=2.115, W=2.95$



$Q^2=3.0, W=3.14$



$Q^2=5.5, W=3.02$



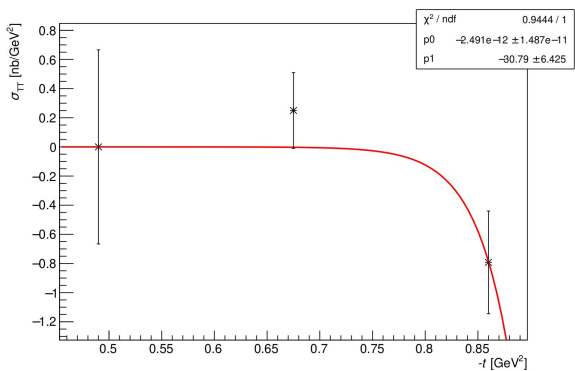
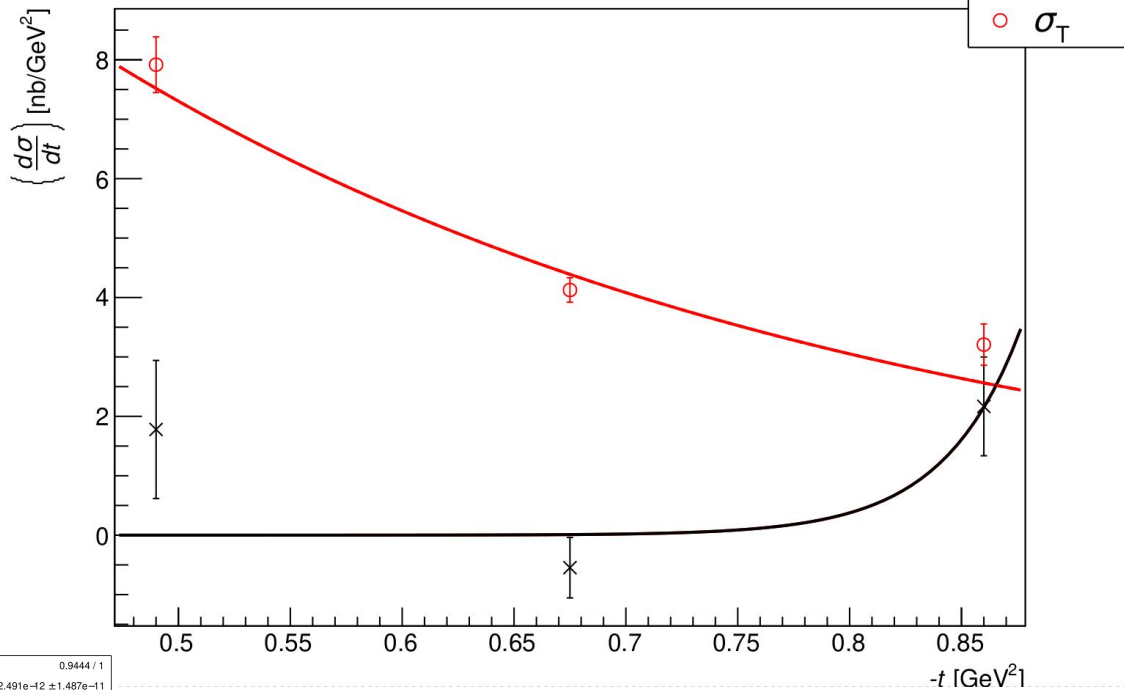
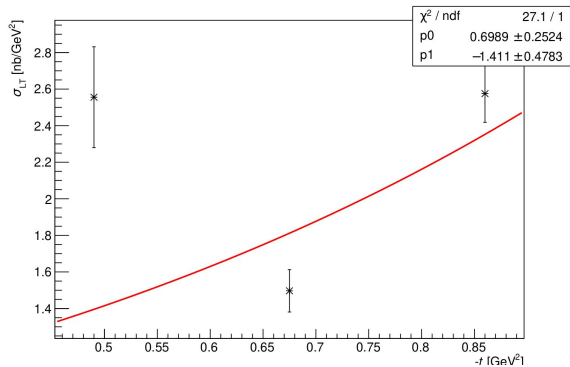
$Q^2=5.5, W=3.02$

$t=0.4-0.95$

*****1 iteration**

$$\sigma_L = (p_1 + p_2 \log Q^2) e^{p_3 | -t |}$$

$$\sigma_T = (p_5 \left(\frac{| -t |}{Q^2} - 1 \right)) e^{p_6 | -t |}$$



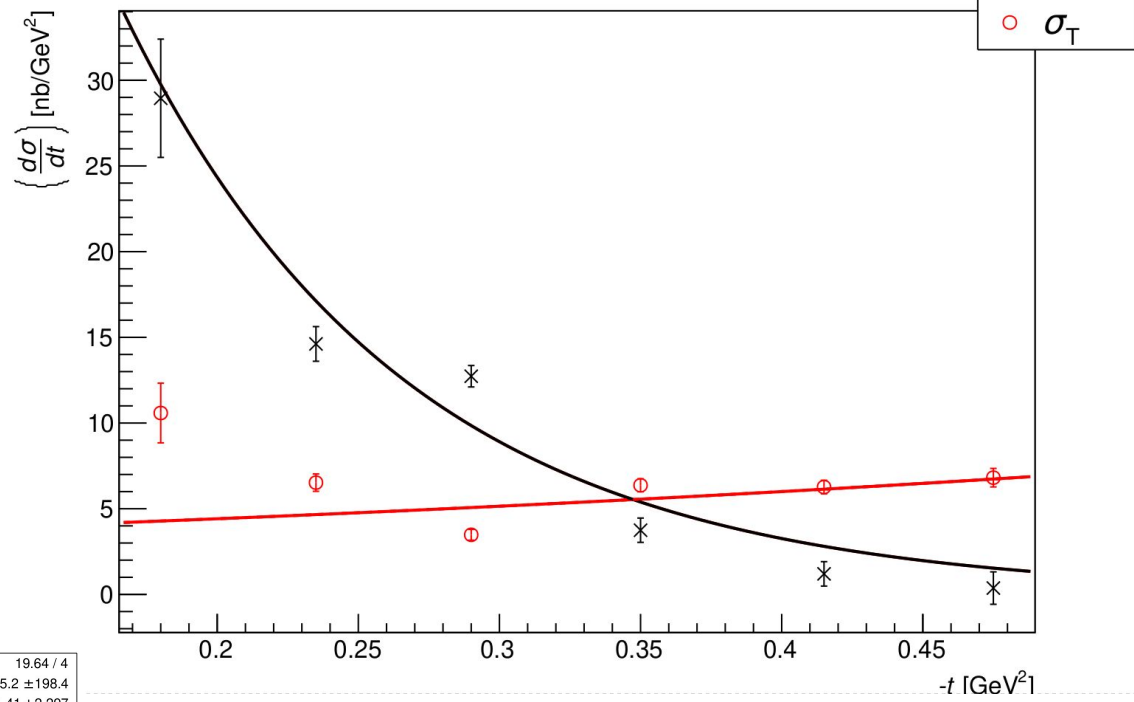
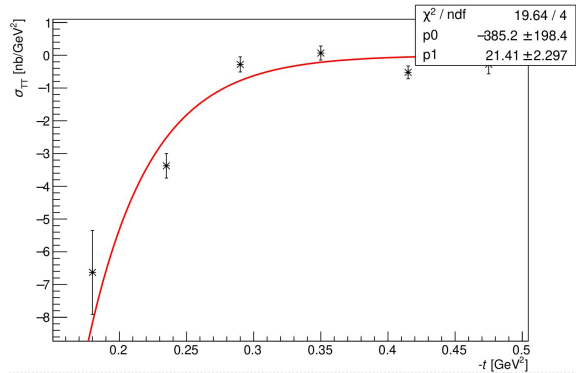
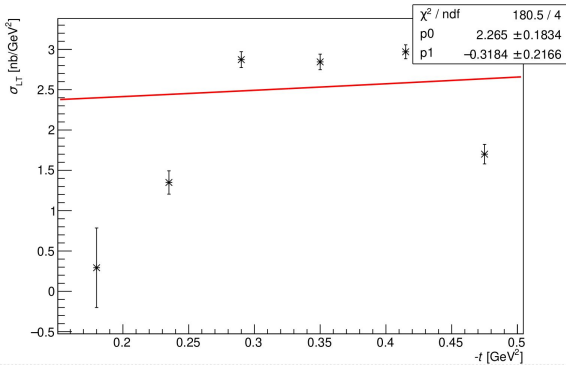
$$Q^2=3.0, W=3.14$$

t=0.15-0.5

*****1 iteration**

$$\sigma_L = (p_1 + p_2 \log Q^2) e^{p_3 | -t |}$$

$$\sigma_T = (p_5 \left(\frac{| -t |}{Q^2} - 1 \right)) e^{p_6 | -t |}$$

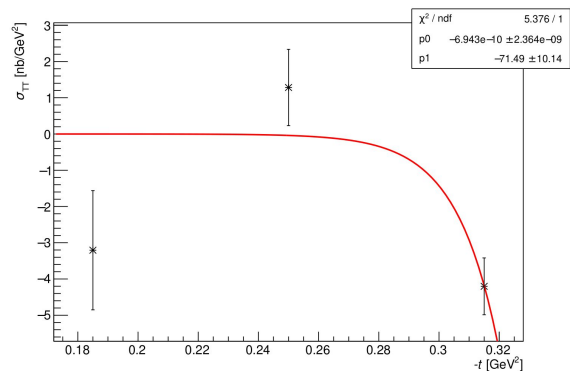
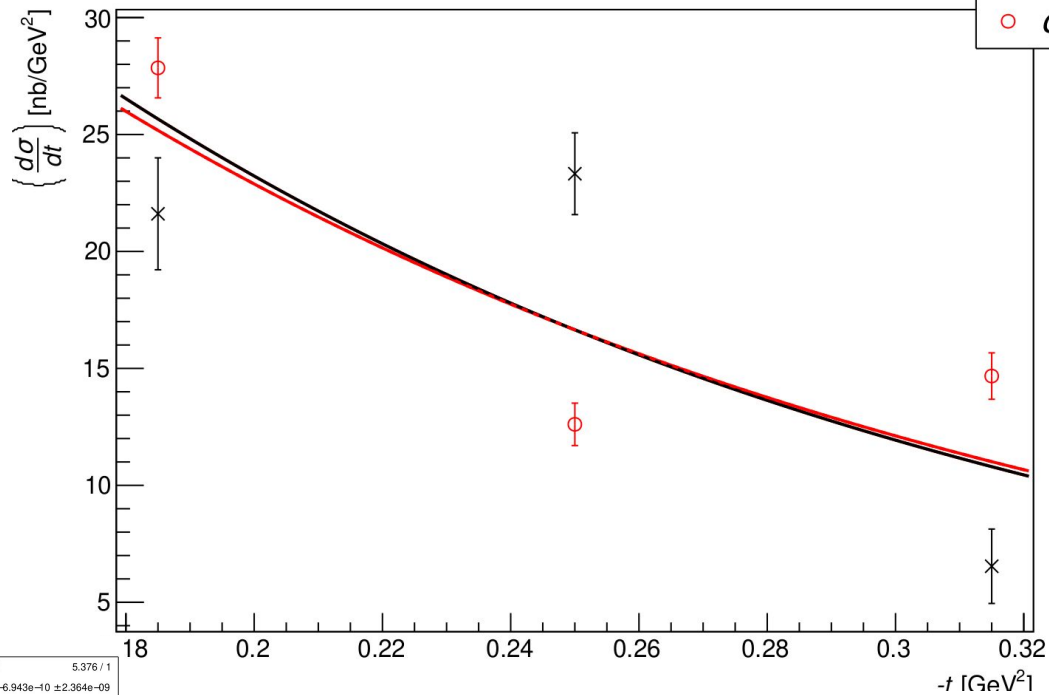
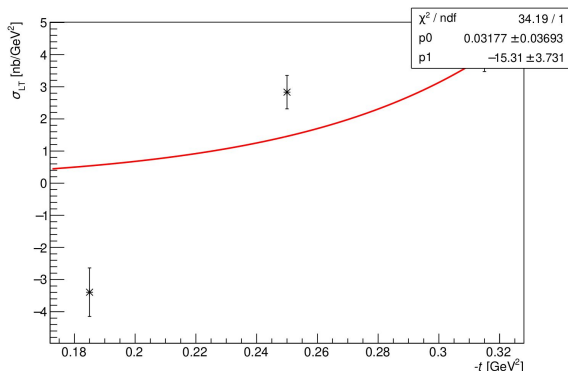


$Q^2=2.115, W=2.95$

$t=0.15-0.35$ $\sigma_L = (p_1 + p_2 \log Q^2) e^{p_3 | -t|}$

*****1 iteration**

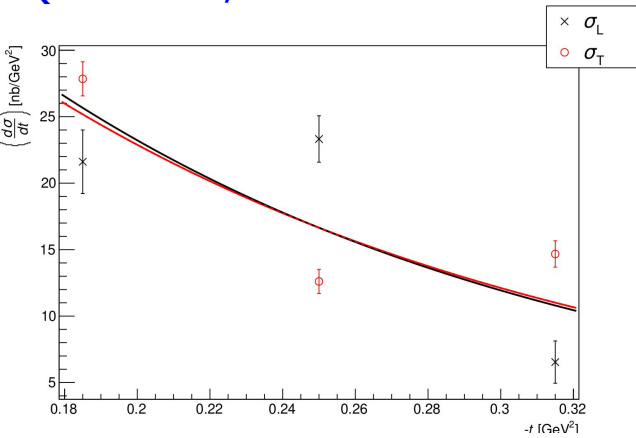
$$\sigma_T = \left(p_5 \left(\frac{| -t |}{Q^2} - 1 \right) \right) e^{p_6 | -t|}$$



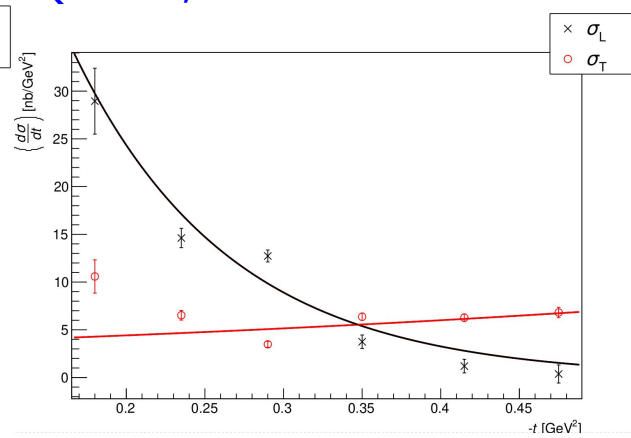
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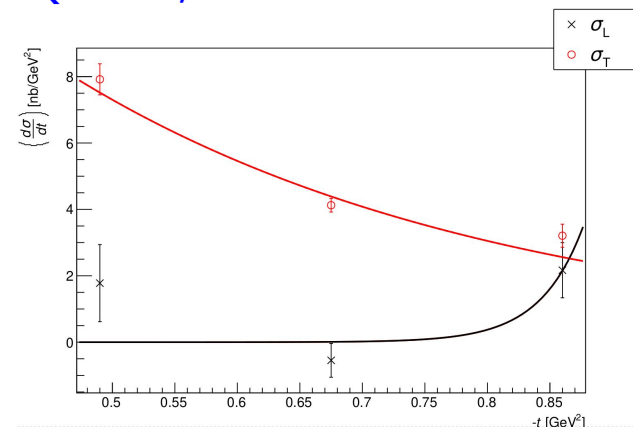
$Q^2=2.115, W=2.95$



$Q^2=3.0, W=3.14$

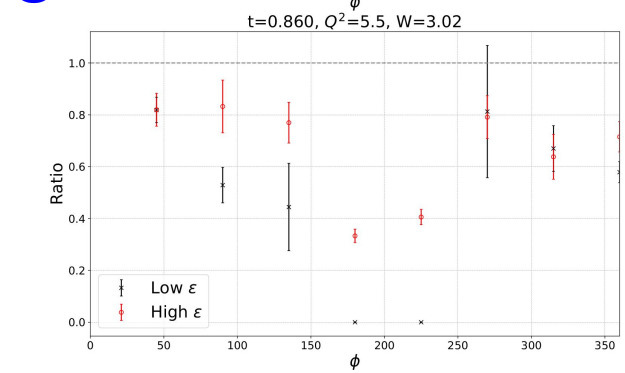
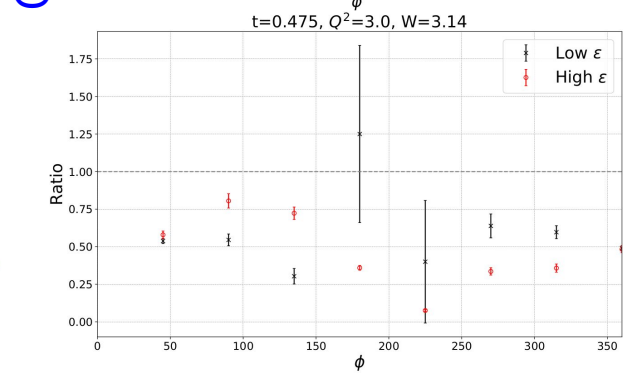
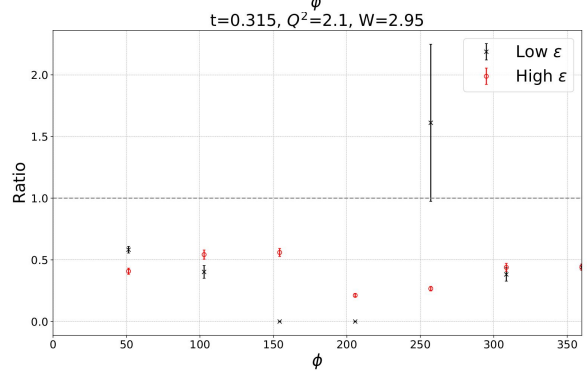
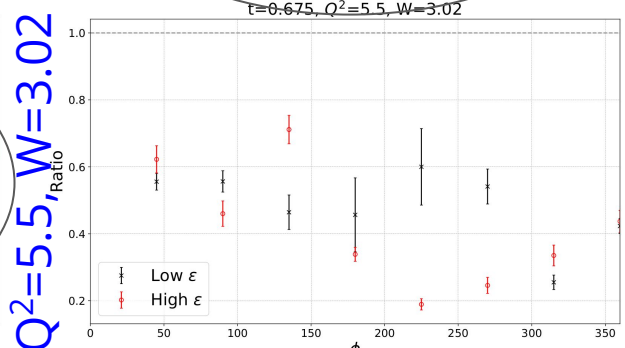
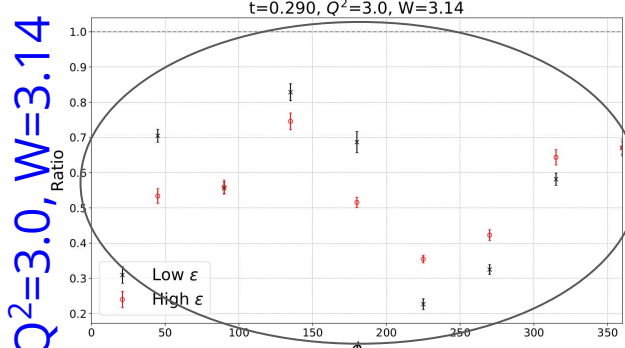
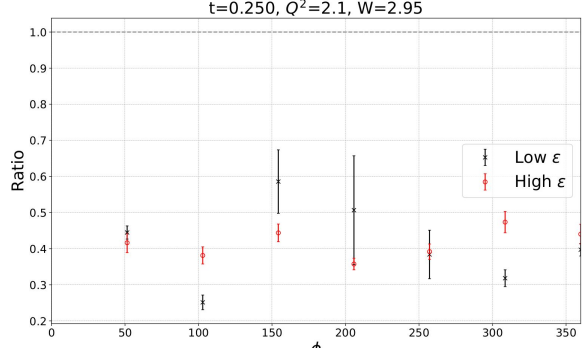
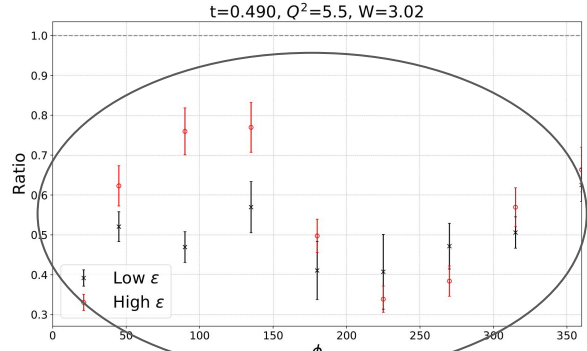
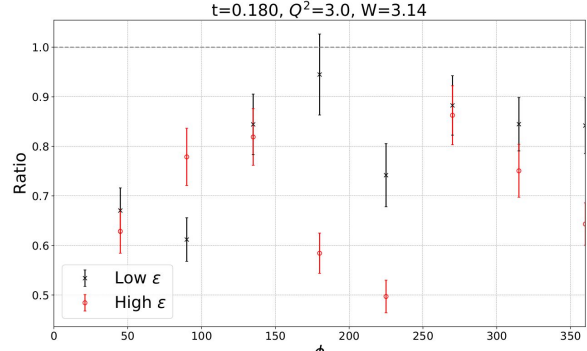
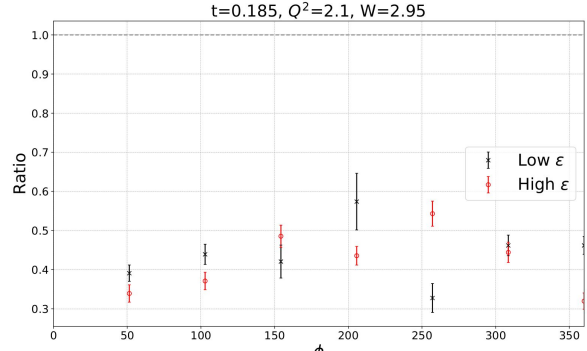


$Q^2=5.5, W=3.02$



***1 iteration

$Q^2=2.115, W=2.95$



$Q^2=3.0, W=3.14$

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