

ATHENA proposal plot updates

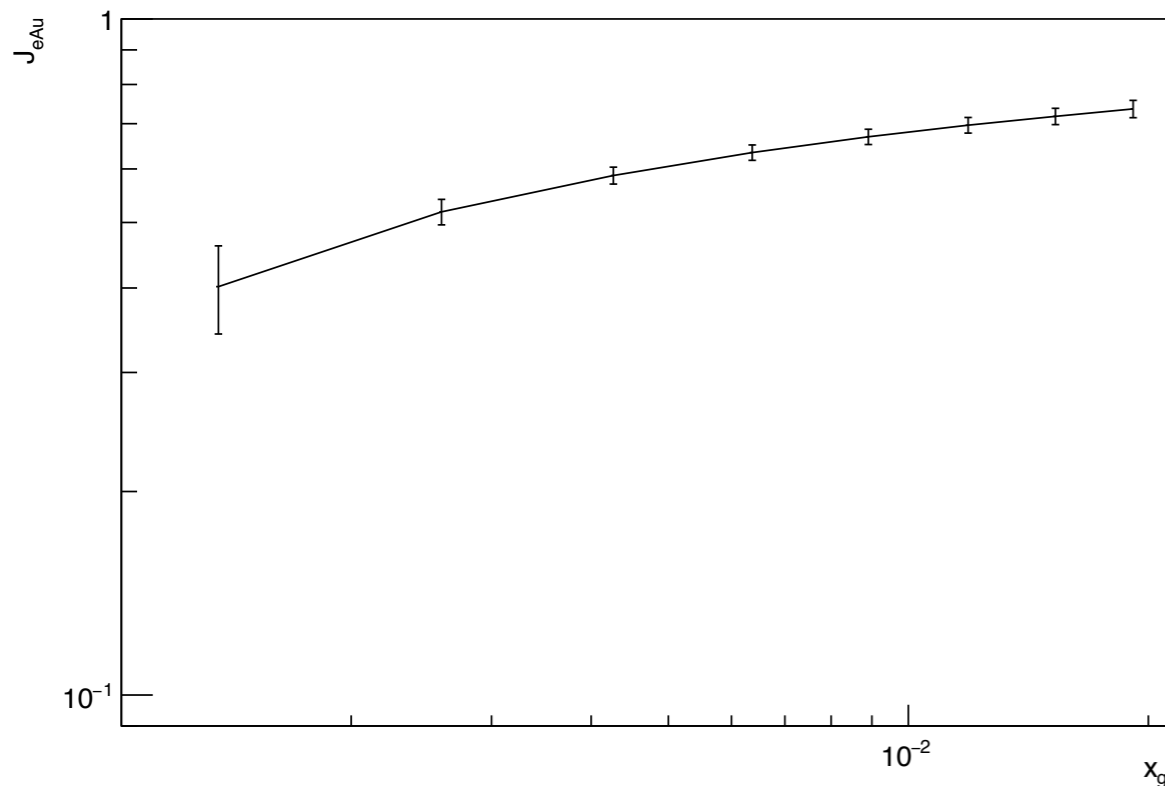
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SIDIS WG meeting, 11-10-21

Gluon saturation observable plots

- Suppression of away-side peak expected in azimuthal correlation of high-pT hadron pairs
- J_{eA} - nuclear suppression factor, here for gold beam plotted against x_g gluon
 - uncertainties using high-pT charged hadron pairs in fast simulation

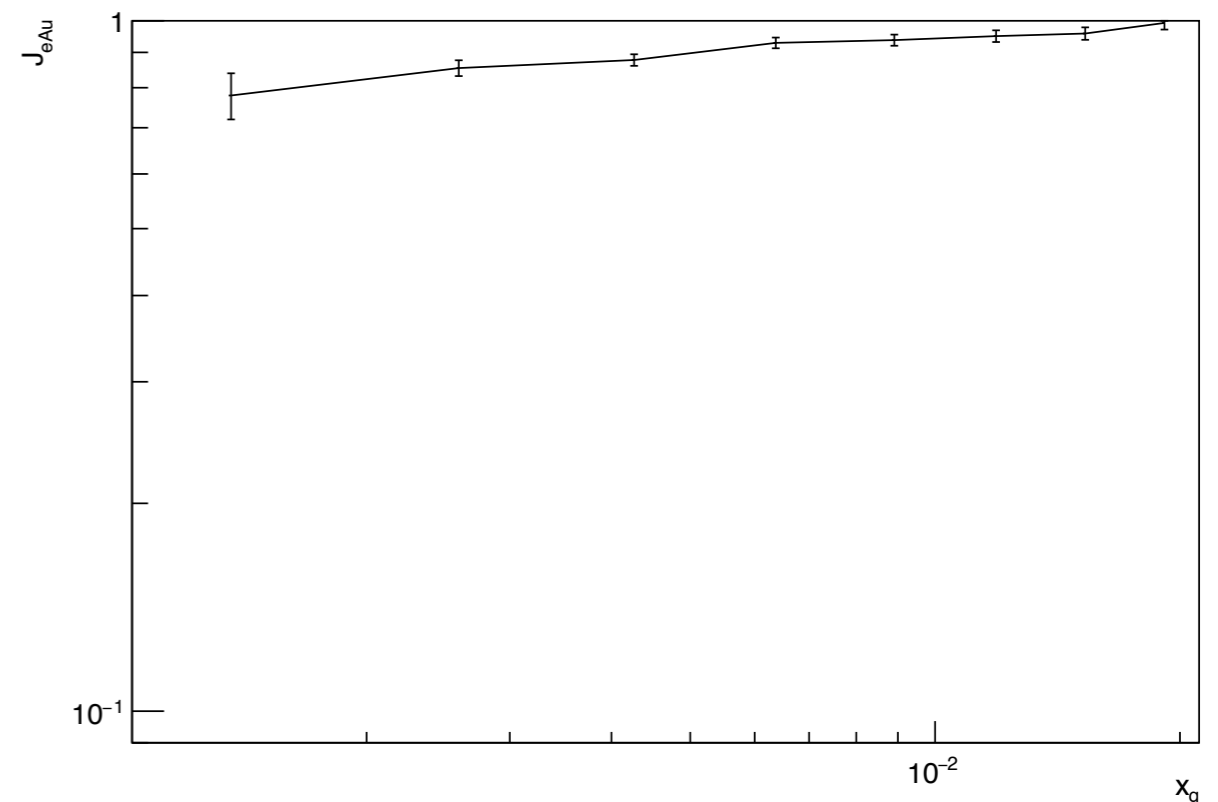
$$J_{eA} = \frac{1}{A^{1/3}} \frac{\sigma_{eA}^{pair} / \sigma_{eA}}{\sigma_{ep}^{pair} / \sigma_{ep}}$$

J_{eAu} vs x_g , charged hadron pairs, model calculation values



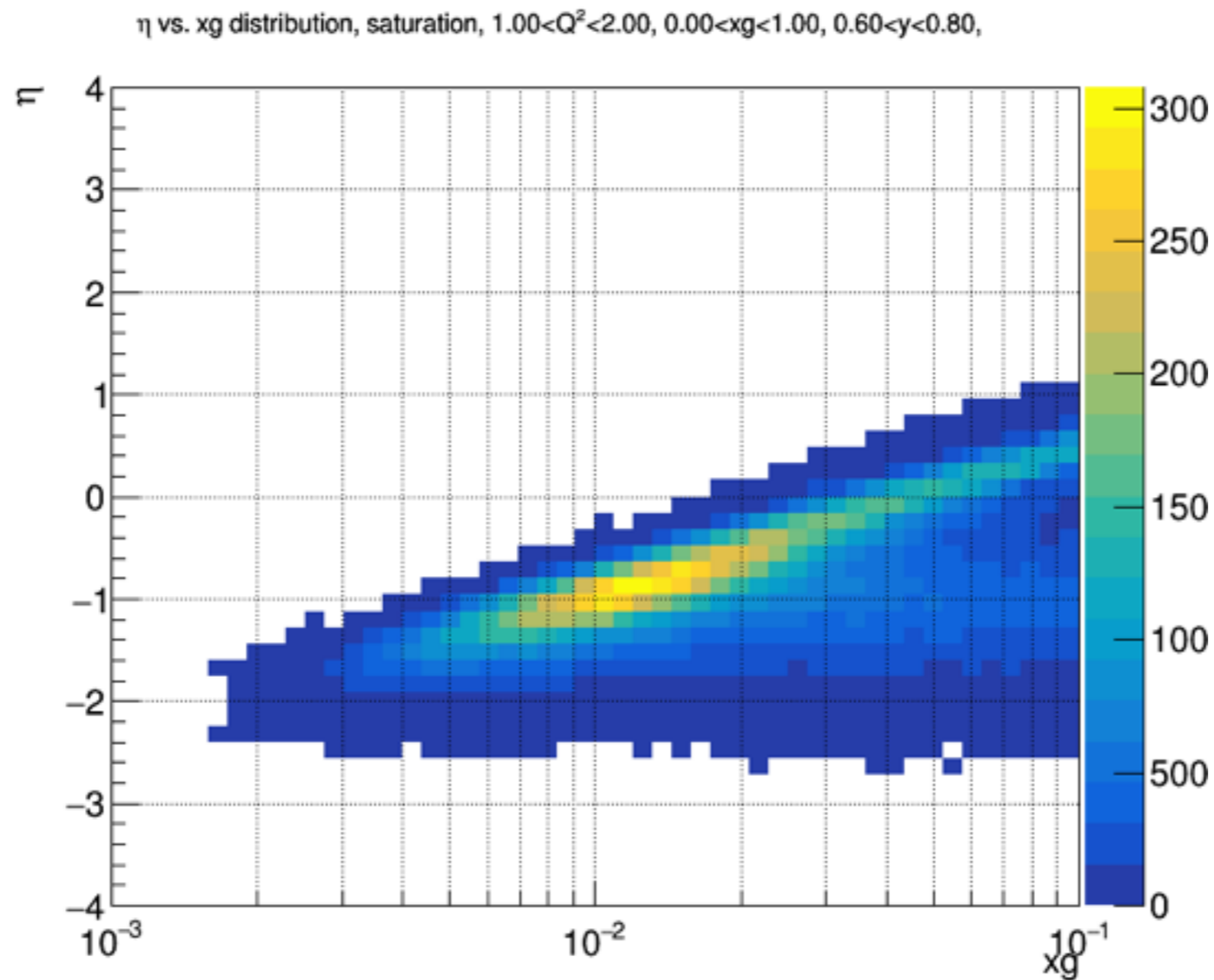
- Left: uncertainties on top of model calculations

J_{eAu} vs x_g , charged hadron pairs



- Right: uncertainties with value for J_{eA} from fast simulation, expected to be about 1

Additional saturation observable plots



- Additional plots for saturation to highlight the detector?
 - Here: pseudo of these high- p_T hadrons vs x_{gluon} , ep events

Current kinematic coverage plots

