

# On LAD target Length

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# Can a full 10-cm or 20-cm target be 'seen' by the electron spectrometer for the kinematics selected for LAD?

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SIMC input parameters:

- deuterium (30 cm) target
- no constraints in proton arm
- electron arm simulated both with HMS and SHMS
- $p_e^{\text{cent}} = 4.4 \text{ GeV}/c$

low-x Kinematics:

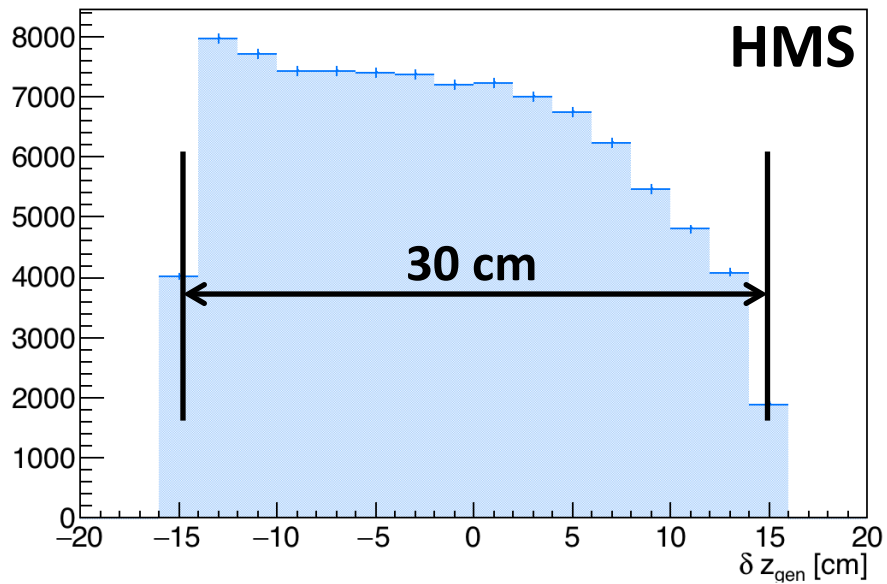
$$\theta_e^{\text{cent}} = 13.5^\circ$$

high-x Kinematics

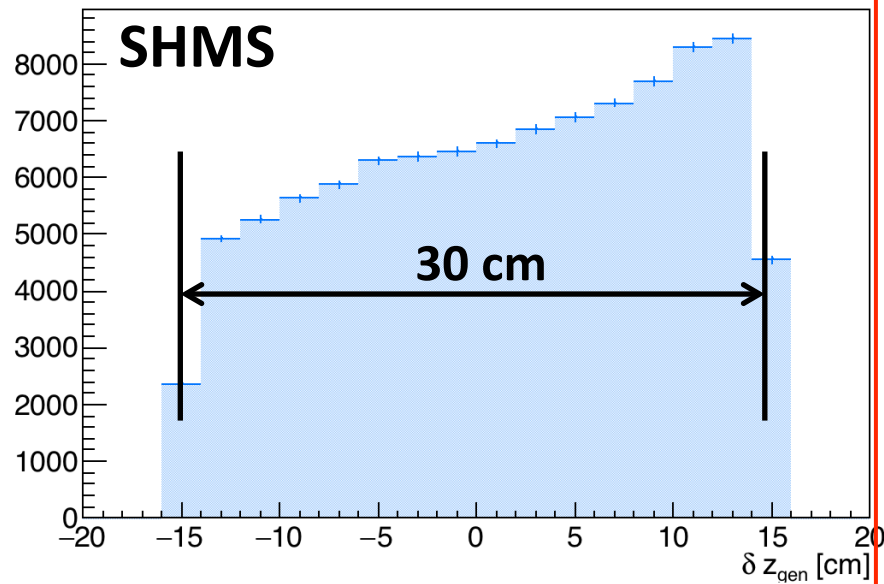
$$\theta_e^{\text{cent}} = 17.0^\circ$$

$$z_{\text{vtx}} = \frac{y_{\text{tar}}}{\sin \theta_{\text{spec}}}$$

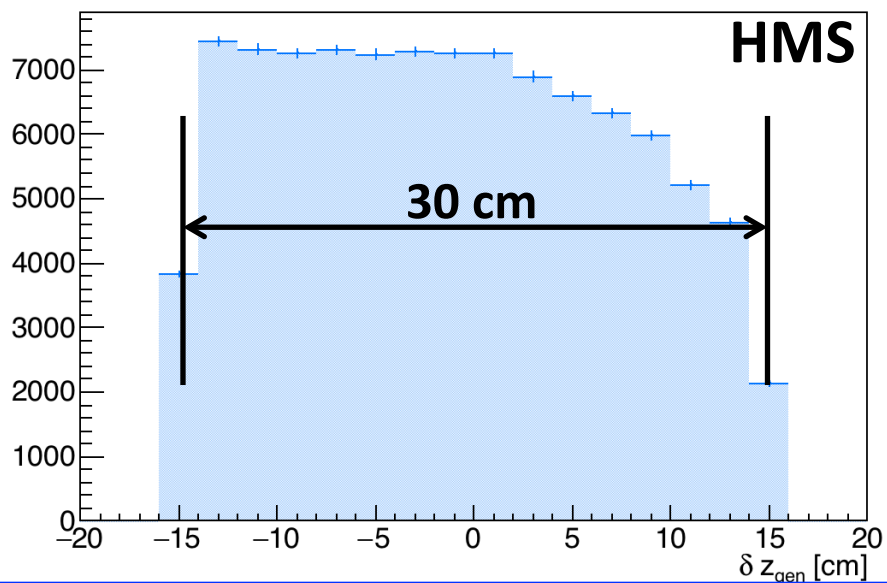
### low-x Kinematics



### SHMS



### high-x Kinematics



### SHMS

