

# $\gamma n \rightarrow \pi^- p$ cross section extraction

- Event selection

- 1 positive and 1 negative tracks, no extra tracks or showers

- kinematic fitting with P4 and vertex constraint, confidence level  $> 0.01$

- tagger accidental subtracted with 4 beam bunches on each side

- vertex cuts: constrain events within target chamber

- standard GlueX PID cuts (timing and dE/dx)

- ~~-Missing  $P^-$  :  $0.5 \text{ GeV} < P_{missing}^- < 1.5 \text{ GeV}$~~

- ~~-Coplanarity angle:  $150^\circ < |\phi_\pi - \phi_p| < 210^\circ$~~

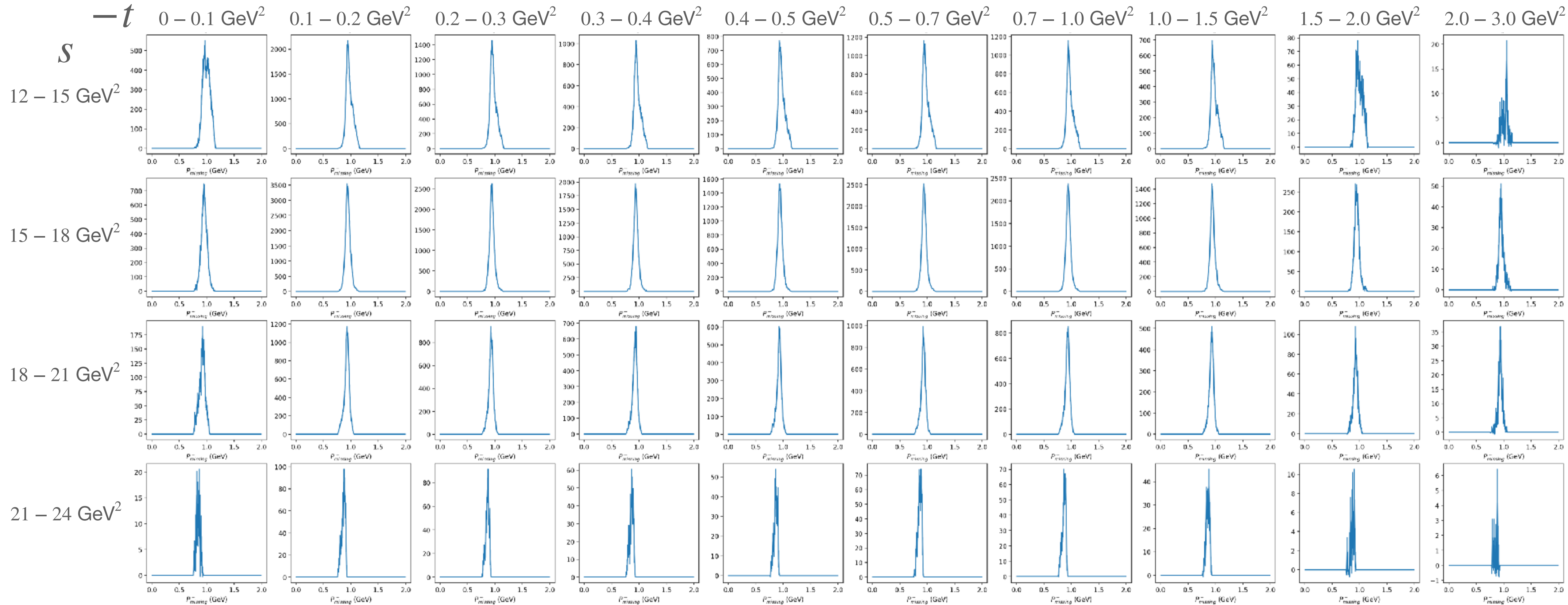
- Charged tracks PID FOM  $> 0.1$

- Photon energy  $> 6 \text{ GeV}$

- Missing momentum  $< 200 \text{ MeV}$

# $\gamma n \rightarrow \pi^- p$ cross section extraction

- Yield extraction: binned in s and t



# $\gamma n \rightarrow \pi^- p$ cross section extraction

- Yield extraction: binned in s and t, compared with measured values (orange)

