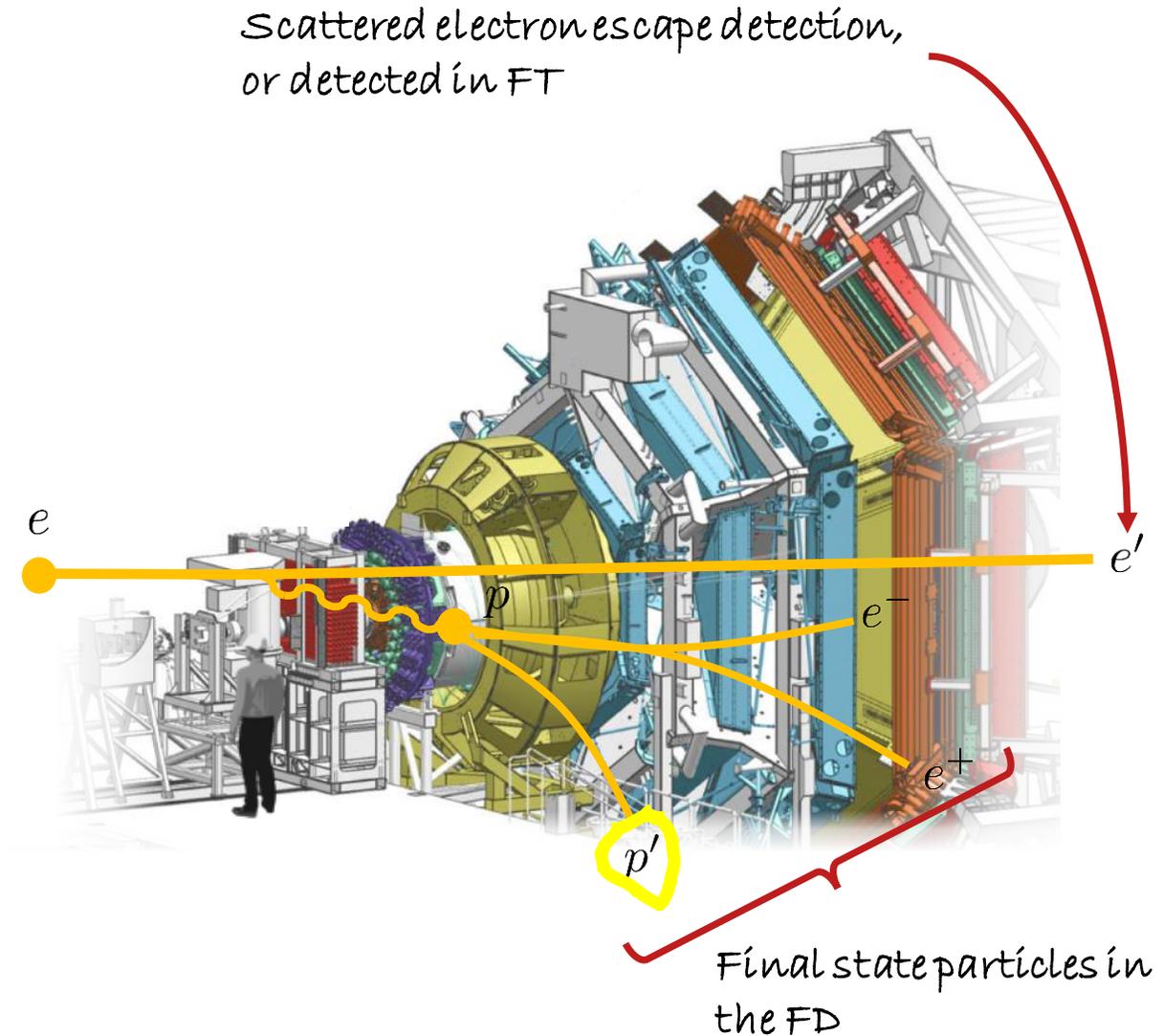


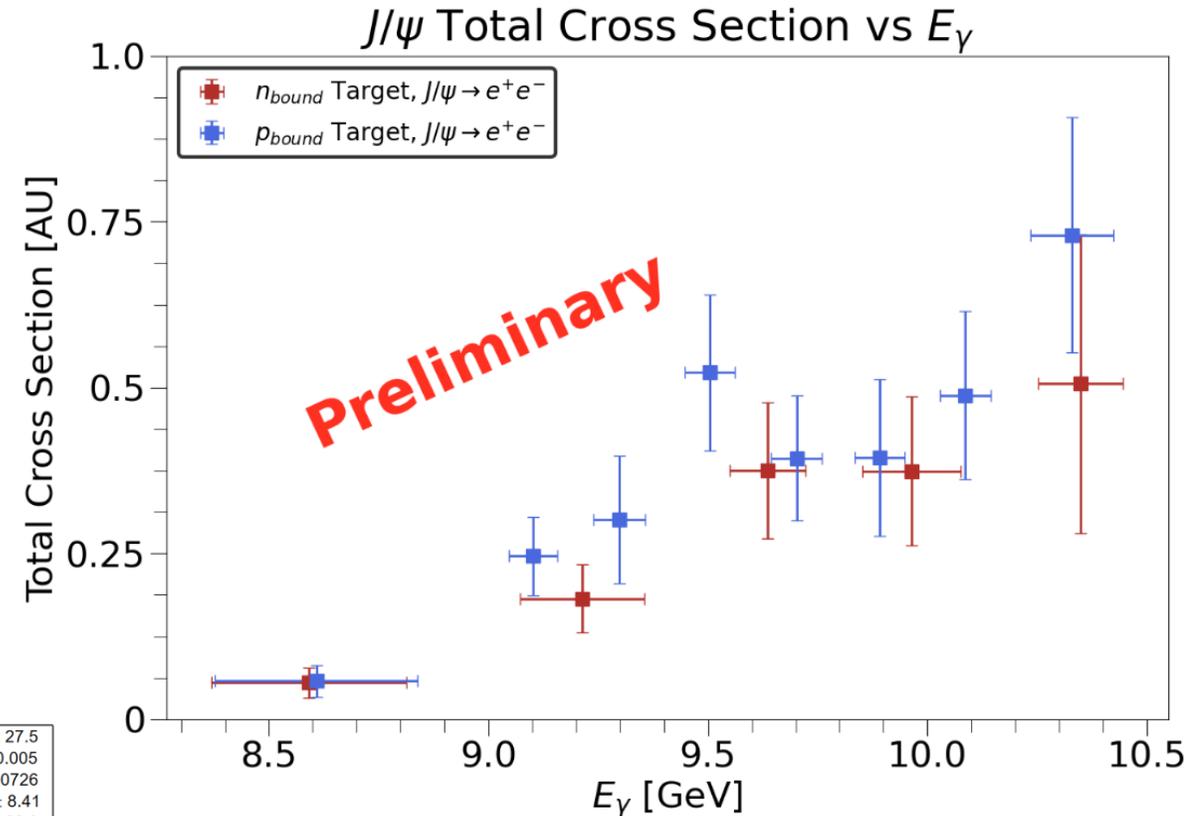
- Aims are to study coherent and incoherent J/ ψ quasi-real photoproduction on the deuteron:
 - $\gamma d \rightarrow J/\psi p n$ (incoherent production on p & n)
 - $\gamma d \rightarrow J/\psi d$ (coherent production on d)for J/ ψ decaying to $l^- l^+ = e^- e^+$ or $\mu^- \mu^+$.
- Exclusivity is achieved through missing four momentum analysis of the scattered electron.
- Analysis of J/ ψ photoproduction on proton and neutron is well advanced.
- One Ph.D. Thesis on J/ ψ photoproduction on proton and neutron.



J/ψ Photoproduction (E12-11-003B)

- Models based on VMD, holographic QCD and GPD frameworks relate J/ψ near-threshold photoproduction to the nucleon gravitational form factors (GFFs).
- However, there are suggestions in GlueX and Hall C data that other production mechanisms may dominate the near-threshold region. This would complicate the extraction of GFFs.
- First measurement of J/ψ photoproduction on neutron with RG-B can help establish isospin invariance of near-threshold production mechanism. Could also lead to estimate of neutron GFFs.

Will be good to put references in each bullets above to backup statements is in them



Results in AU as normalization is in progress.

Only using spring 2019 data (21.7 PAC days):

- ~ 56 % of collected beam time
- ~ 24% of allocated beam time

