

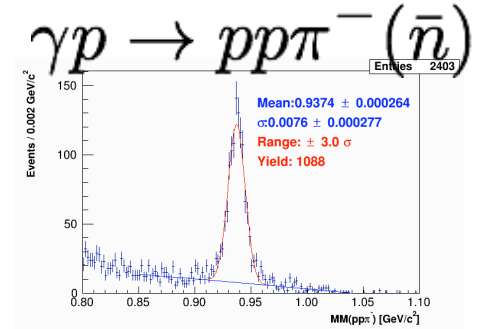
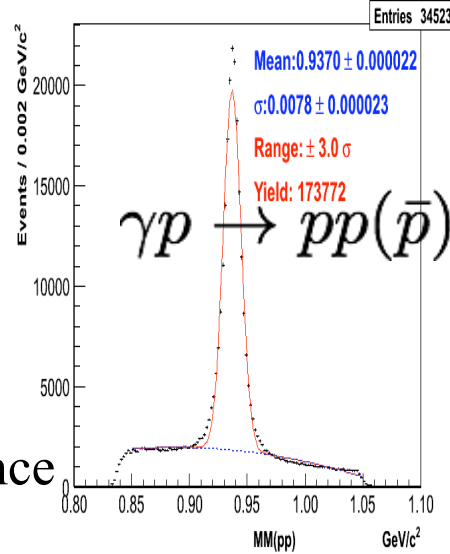
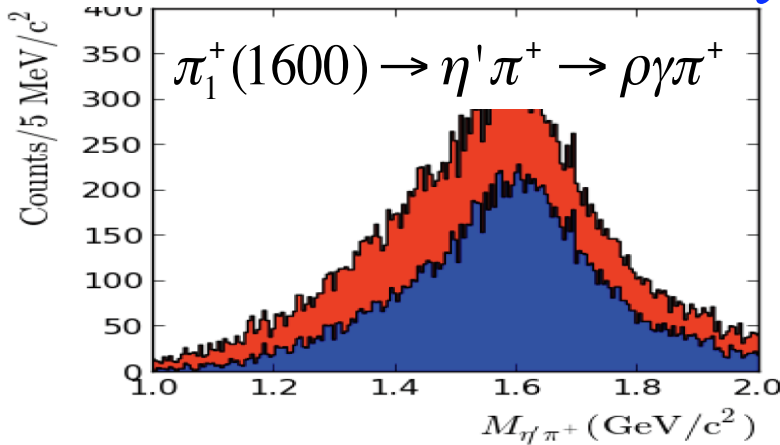
# Hadron Spectroscopy at FIU: Some New Opportunities

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# Searching for Missing States

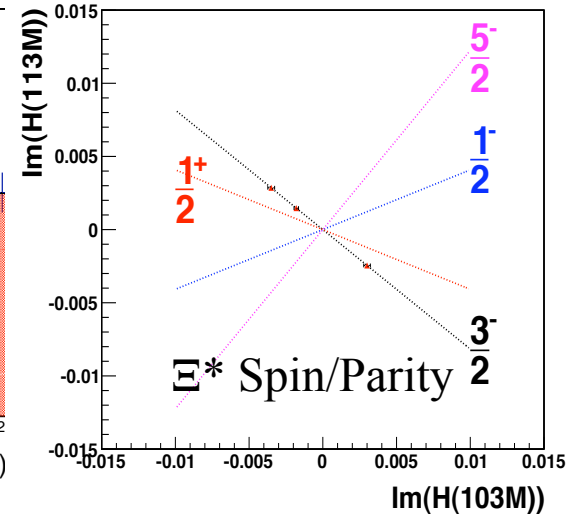
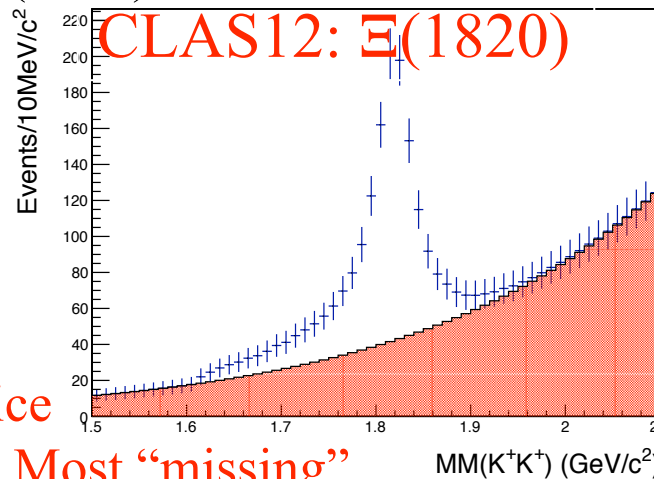
## Exotic Meson/Baryon-Antibaryon/Cascades



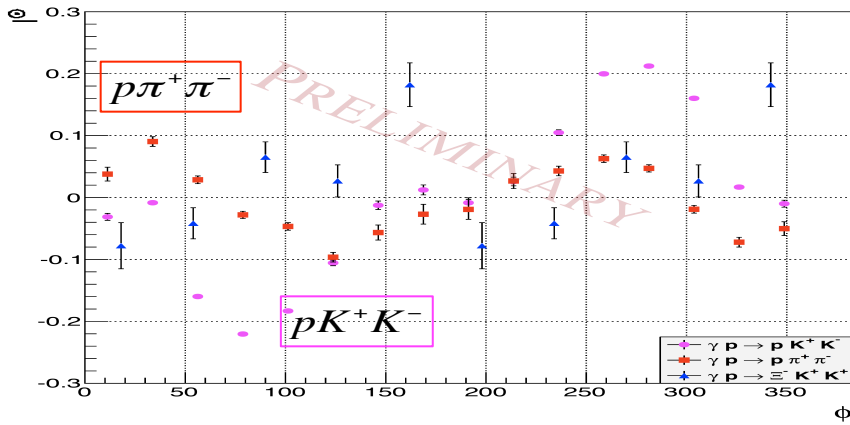
- ◆  $\pi_1(1600)$  remain the strongest evidence
- ◆ Recent COMPASS results
- ◆ GlueX: E. Pooser, Thesis (2015)

- High mass mesons  $>2\text{GeV}$  decaying to  $N\bar{N}$
- Puzzle: Abundance
- PWA/Xsection ongoing, W. Phelps, Thesis (2016)

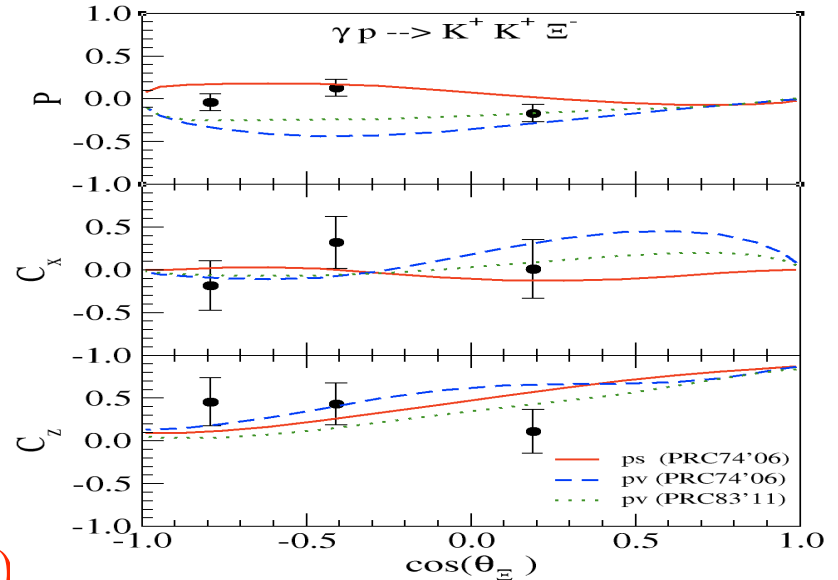
- GlueX/CLAS12 expect unprecedented statistics for  $\Xi^*$  and  $Y^*$
- Exclusive reactions
- PWA/DMA feasible:  $J^P$
- Comparison with QM/Lattice
  - Many predicted states; Most “missing”
  - Typically narrower



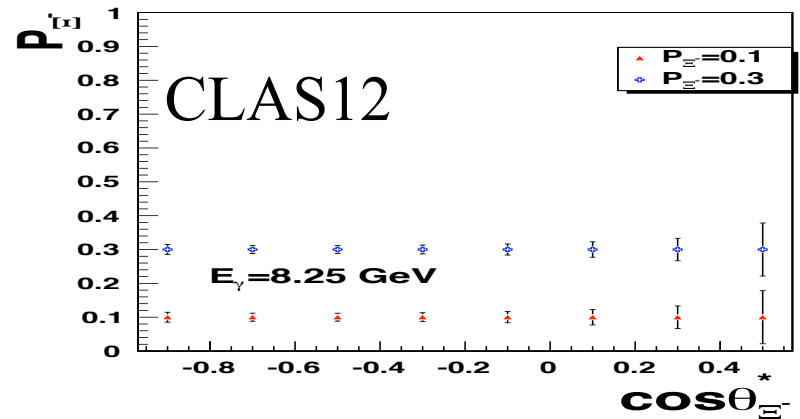
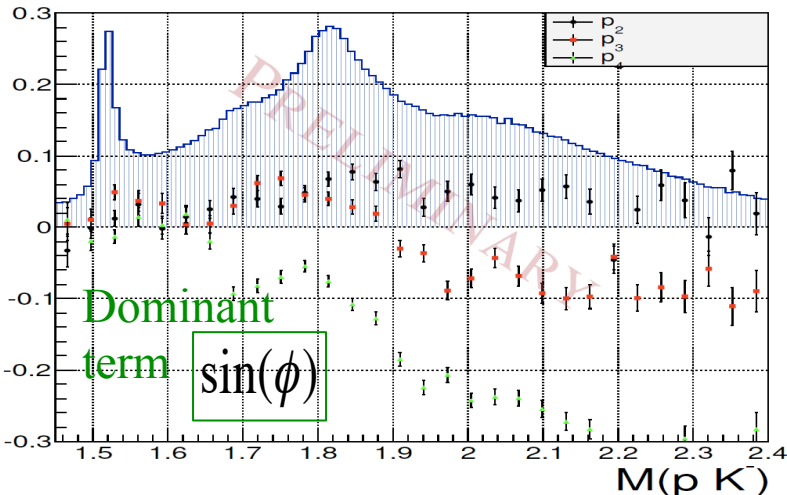
# Polarization Observable:



- Beam helicity asymmetry two Kaon photoproduction, R. Badui, Thesis(2016)



Induced/transferred polarization of  $\Xi^-$  in photoproduction, J. Bono, Thesis (2014)



Polarization observables are essential in understanding the production mechanisms