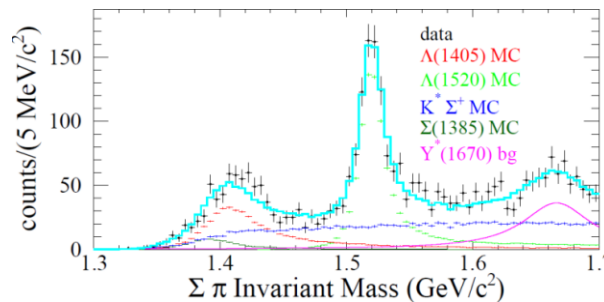
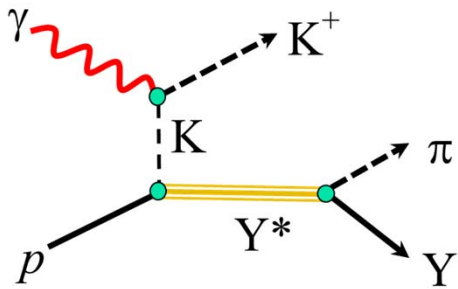
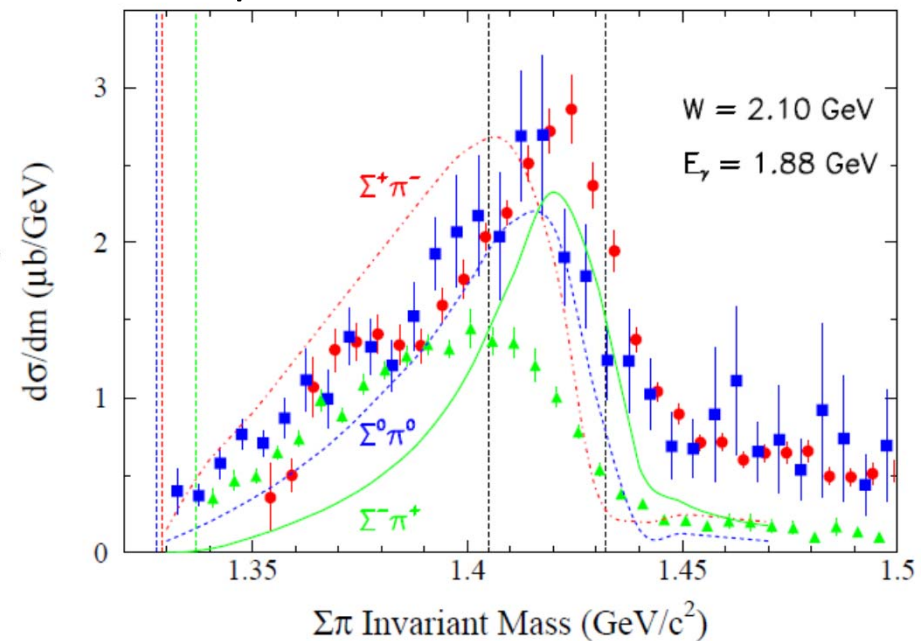


Photoproduction Line Shapes for $\Sigma\pi$ Near the $\Lambda(1405)$

- $\gamma + p \rightarrow K^+ + \Lambda(1405)$; $\Lambda(1405) \rightarrow \Sigma^+\pi^-, \Sigma^0\pi^0, \Sigma^-\pi^+$
- Data: CLAS g11a data, $1.95 < W < 2.85$ GeV ; strong charge variations
- Theory: chiral unitary model for dynamical resonance generation
- Isospin decomposition reveals $I=1$ strength
 - Possibly resonant Σ -like state



Sample result:



$$|T_{\pi^-\Sigma^+}|^2 = \frac{1}{3}|t_0|^2 + \frac{1}{2}|t_1|^2 - \frac{2}{\sqrt{6}}|t_0||t_1|\cos\phi_{01},$$

$$|T_{\pi^0\Sigma^0}|^2 = \frac{1}{3}|t_0|^2,$$

$$|T_{\pi^+\Sigma^-}|^2 = \frac{1}{3}|t_0|^2 + \frac{1}{2}|t_1|^2 + \frac{2}{\sqrt{6}}|t_0||t_1|\cos\phi_{01}.$$