

# A double-Regge exchange model for high-energy $\eta^{(\prime)}\pi$ photoproduction

*Tuesday 9 December 2025 10:30 (30 minutes)*

The study of  $\eta^{(\prime)}\pi$  photoproduction is particularly interesting for the search for the lowest lying hybrid meson with exotic quantum numbers, the  $\pi_1(1600)$ , at the GlueX experiment at Jefferson Lab. In this talk, I will present a model based on double-Regge exchange of vector trajectories  $\eta^{(\prime)}\pi$  photoproduction at high energies. The model successfully describes CLAS data at large  $\eta\pi$  invariant mass and predicts a sizable forward-backward angular asymmetry at GlueX energies, larger in  $\eta'\pi$  than in  $\eta\pi$ , indicating the presence of strong exotic partial waves in the resonance region, particularly in the  $\eta'\pi$  channel.

**Author:** MONTANA, Gloria (Universitat de Barcelona & ICCUB)

**Presenter:** MONTANA, Gloria (Universitat de Barcelona & ICCUB)

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