



# PHYSICS AND ASTRONOMY SEMINAR

## Dr. Garth Huber

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**“Deep Exclusive  $p(e, e'\pi^+)n$  and  $p(e, e'K^+)\Lambda$  Studies  
at Jefferson Lab”**

### Abstract

Deep Exclusive Meson Production (DEMP) reactions are an important tool in our quest to better understand the non-perturbative structure of hadrons. They provide one of the clearest pictures of the inner workings of QCD, but the studies are difficult experimentally because of the small reaction cross sections and clean multi-particle coincidence requirements. In particular: DEMP reactions allow experimental access to the spacelike pion elastic form factor and the transition between perturbative and non-perturbative QCD. Similar techniques may allow access to the spacelike kaon form factor for the first time. Furthermore, if the hard-soft factorization regime is reached, DEMP reactions allow unique Generalized Parton Distribution data to be acquired. I will summarize the present experimental situation and provide an overview of what might be obtained during the first decade of Jefferson Lab 12 GeV operations.

Wednesday, August 30, 2017

2:00 p.m.

Engineering/Computer Science Building

Room 104