**Physics Seminar**

**Stan Brodsky**

**Stanford Linear Accelerator Center**

**Stanford University**

*“Novel Tests of Non-Perturbative and Perturbative QCD at JLab”*

Abstract

I will discuss several novel aspects of hadron dynamics, including (a) the implications of intrinsic heavy quarks for the production of charm near threshold at JLab-12; (b)  the modification of pQCD factorization theorems due to lensing corrections from initial- and final-state interactions; and (c) the non-universality of the anti-shadowing of quark distributions in nuclei.  I will also discuss the phenomenological implications of two new theory developments: "Light-Front Holography" - a novel approach to color confinement and the origin of the QCD mass scale; and the "Principle of Maximum Conformality" - a procedure which systematically eliminates renormalization scale ambiguities and yields scheme-independent predictions for pQCD.

**Tuesday, August 12, 2014**

**3:30 pm**

**CEBAF Auditorium**