

Laboratory for Nuclear Science  
**SPECIAL SEMINAR**

Joseph Seele  
(University of Colorado)

Constraining the Polarization of the Proton's Glue with the  $\eta$   
Meson at PHENIX

The division of the proton's spin among its quarks and gluons is a fundamental question in modern nuclear physics. The PHENIX experiment at the Relativistic Heavy Ion Collider (RHIC) is measuring asymmetries in polarized proton-proton collisions to garner information about the polarization of the quarks and gluons in the proton. The recent measurement of the double helicity asymmetry in mid-rapidity  $\eta$  meson production in polarized proton-proton collisions at  $\sqrt{s} = 200\text{GeV}$  will be presented, along with a comparison to theoretical expectations made possible by a recent, first extraction of the  $\eta$  fragmentation functions.

Thursday, May 15, 2008  
at 11 AM  
Kolker Room 26-414

Massachusetts Institute of Technology