

Abstract Submitted  
for the DNP16 Meeting of  
The American Physical Society

**The RHIC Cold QCD Plan for 2017 to 2023: A Portal to the EIC**

RENEE FATEMI, University of Kentucky — In light of the recent recommendation by the Nuclear Science Advisory committee to construct a U.S. based Electron Ion Collider (EIC), the spin community at the Relativistic Heavy Ion Collider has developed a program of must-do experiments to be run during the period leading up to the turn on of the EIC. These experiments will utilize the unique capabilities of the world's only polarized proton-proton collider to make measurements that will, when combined with data from the EIC, test the limits and validity of factorization and universality. This program includes measurements of observables that are sensitive to the universality and evolution of initial and final state transverse momentum distributions, the transversity distributions at high  $x$  and gluon fragmentation functions. The timeline and detector requirements for implementation will be discussed.

Renee Fatemi  
Univ of Kentucky

Date submitted: 29 Jun 2016

Electronic form version 1.4