

# UCLA Nuclear Physics Seminar

## “spin and cold nuclear matter physics at RHIC - now and the next 5 years”

Presented by Dr. Ralf Seidl  
*RIKEN, Japan*

RHIC has provided various important inputs for the study of the spin structure and cold nuclear matter effects. The contribution of gluons to the spin of the proton has been found to be substantial and sea quarks appear to be asymmetrically polarized. Furthermore various new asymmetries have been found related to the transverse spin structure of the nucleon which shed light onto the strong interaction itself.

The RHIC data also shows interesting cold nuclear matter (CNM) effects which suggest a suppression of gluons in nuclei at small momentum fractions. Especially the CNM and transverse spin effects are most striking at high rapidities where both RHIC experiments, PHENIX and STAR, have so far only limited instrumentation. In the remaining years before the EIC the plan of the spin and CNM community is to concentrate on the forward region.

An update of the existing measurements and future plans will be given.

Location: Knudsen 4-134

Date: Friday, October 6<sup>th</sup>, 2017

Time: 2:00pm

