

# 10th International Conference on Hard and Electromagnetic Probes of High-Energy Nuclear Collisions



Contribution ID: 154

Type: **Poster Presentation**

## Cold QCD with sPHENIX

*Tuesday 2 June 2020 07:30 (1h 20m)*

The sPHENIX detector at BNL's Relativistic Heavy Ion Collider (RHIC) will enable a spectrum of new or improved cold QCD measurements, enhancing our understanding of the initial state for nuclear collisions. sPHENIX measurements in proton-proton and proton-nucleus collisions will reveal more about how partons behave in a nuclear environment, inform our understanding of the initial state in heavy-ion collisions, and provide comparative data to investigate modification of fragmentation functions. Measurements will also take advantage of RHIC's unique capability to collide polarized protons on nuclei, which provides novel opportunities to study nuclear effects with spin observables. A potential upgrade to sPHENIX with forward instrumentation could significantly enhance these physics capabilities. The cold QCD nuclear physics program for the proposed sPHENIX midrapidity detector as well as the enhanced program enabled with forward upgrades will be presented.

### Collaboration (if applicable)

sPHENIX

### Track

New Experimental Developments

### Contribution type

Contributed Talk

**Author:** Prof. ROSATI, Marzia (Iowa State University)

**Presenter:** SHANGASE, Desmond Mzamo (University of Michigan (US))

**Session Classification:** Poster session

**Track Classification:** New Experimental Developments