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## Recent Results of the RHIC Spin Program

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The Relativistic Heavy Ion Collider (RHIC) is the only polarized (both longitudinal and transverse) proton collider in the world, capable of reaching center of mass energies of  $\sqrt{s} = 200$  GeV and 510 GeV. At these energies, the dominating processes are quark-gluon and gluon-gluon scattering, allowing the major RHIC experiments probe partons inside the nucleus. The RHIC spin program has provided a great variety of measurements to study the proton structure, in particular the spin composition. Following the measurements that provided the first evidence of non-zero gluon polarization at  $x > 0.05$ , several concurrent measurements of longitudinally polarized proton collisions have been performed to increase precision and reduce the sensitivity down to  $x \sim 10^{-3}$ ; besides estimating the spin contribution of individual sea quarks to the total proton spin. Measurements of transversity distribution of the nucleon and the transversely polarized fragmentation functions are taken at RHIC, due its versatile capability to change the orientation of the colliding protons polarization. Several measurements with different probes are underway, aiming to test universality, constrain evolution of transverse momentum dependence distributions (TMDs) and extract interference fragmentation functions over a wide kinematic range. An overview of the recent physics results of the RHIC spin program and their impact in model calculations is presented. Additionally plans to extend and/or complement these measurements in the near future are discussed.

### Additional comments

**Author:** QUINTERO, Amilkar (Temple University)

**Presenter:** QUINTERO, Amilkar (Temple University)

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