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Type: **Talk**

## Recent spin physics results from PHENIX

Monday 26 August 2024 12:00 (20 minutes)

Situated at the Relativistic Heavy Ion Collider (RHIC) at Brookhaven National Laboratory, the PHENIX experiment has for almost two decades been at the forefront of investigations into spin structure and dynamics in high energy nuclear physics. Although decommissioned in 2016, the PHENIX collaboration has released a number of new results over the past several years that continue to inform the field. Recent longitudinal spin measurements uncover the role of gluon and sea quark polarization in the proton. Transverse spin measurements probe the transverse momentum dependent (TMD) distributions and higher-twist multiparton correlators that are needed to fully explain partonic dynamics in the initial and final state. Additionally, the effects of heavy ions on spin have been studied by comparing transverse spin measurements between p+p and p+A collisions. In this talk, I will present these recent results and the status of the final PHENIX spin analyses as the field begins its transition to the future Electron-Ion Collider.

### Internet talk

No

### Is this an abstract from experimental collaboration?

Yes

### Name of experiment and experimental site

PHENIX, Relativistic Heavy Ion Collider

### Is the speaker for that presentation defined?

Yes

### Details

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