



BNL NPP Retreat for Postdoctoral Research Associates

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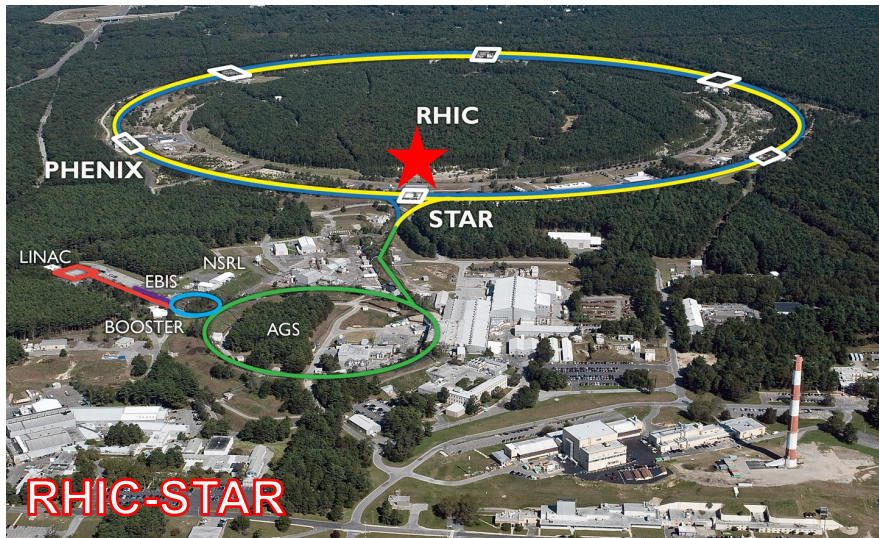
Who am I?

BNL: Joint Ph.D with CCNU;
Postdoc

CCNU: Bachelor's degree

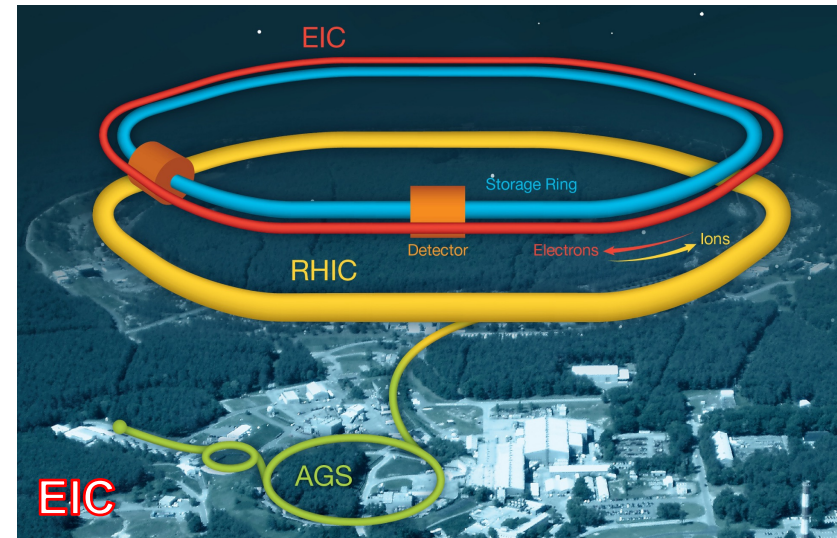


My research at BNL



RHIC: data taking till 2025

- Two ion accelerator/storage rings (inside RHIC tunnel)
- **p+p, p+A, A+A** collisions
- **Data analysis + p-Carbon** polarimeter

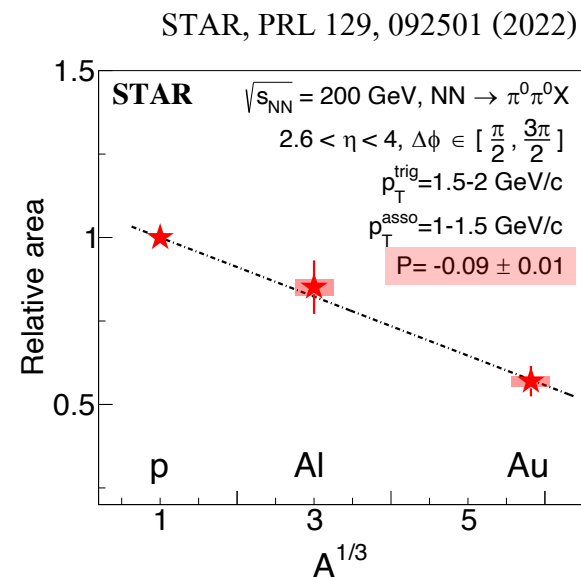
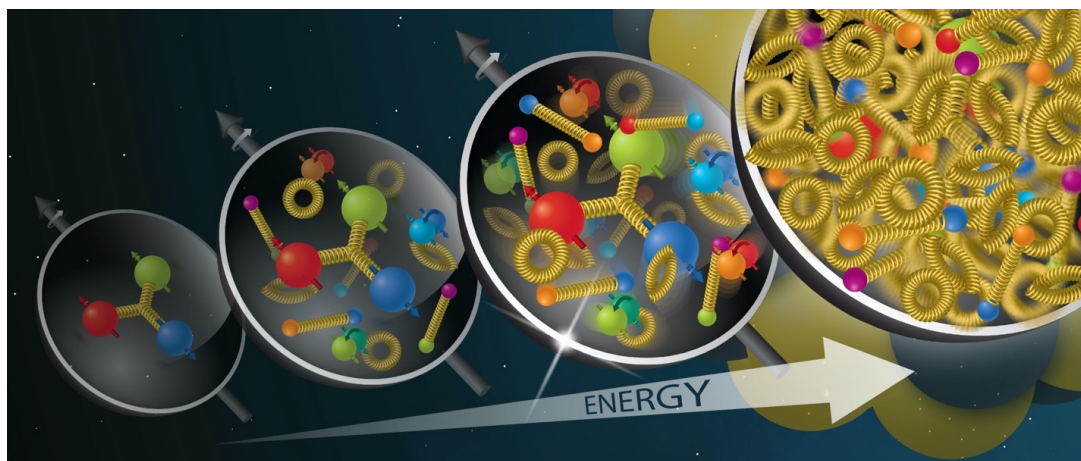


EIC: planned operation starts in 2032

- One electron accelerator ring and one electron storage ring added at RHIC
- **e+p, e+A** collisions
- **Simulations + detector design**

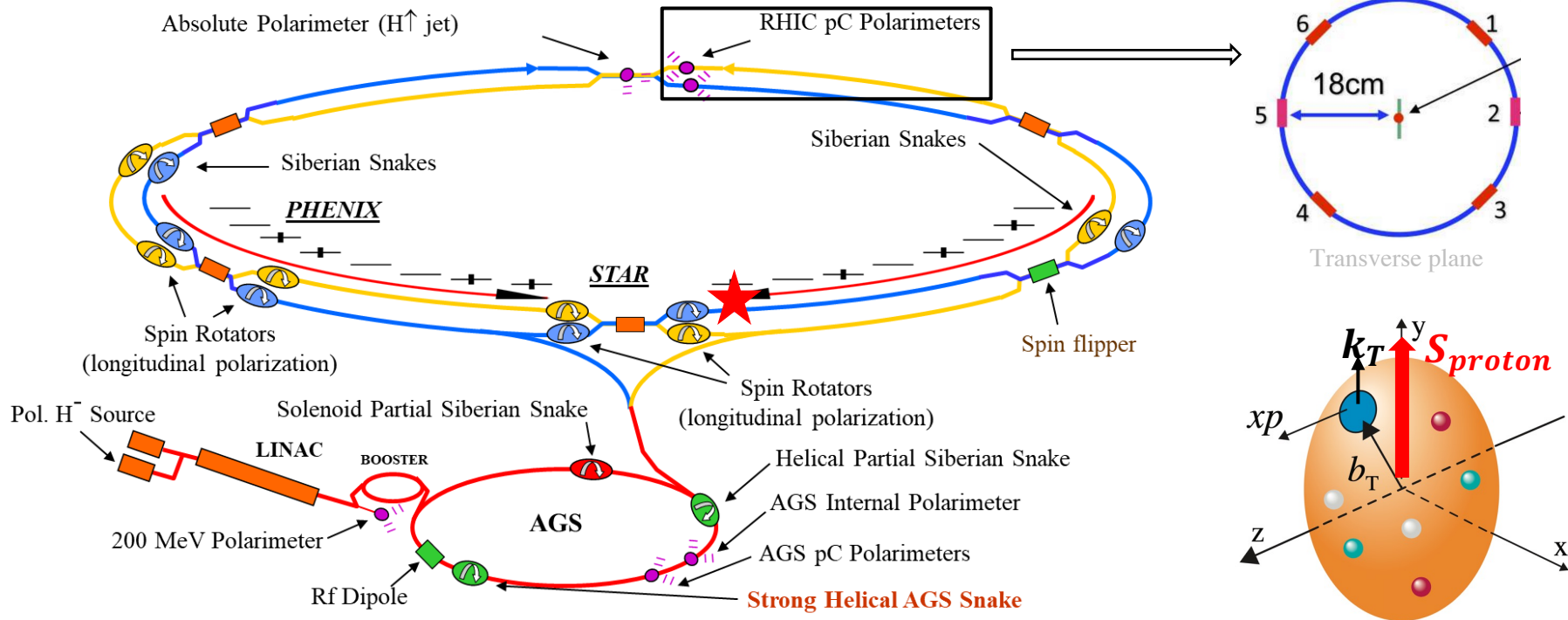
Studying nucleon structure at STAR and the EIC

Studying gluon saturation at STAR



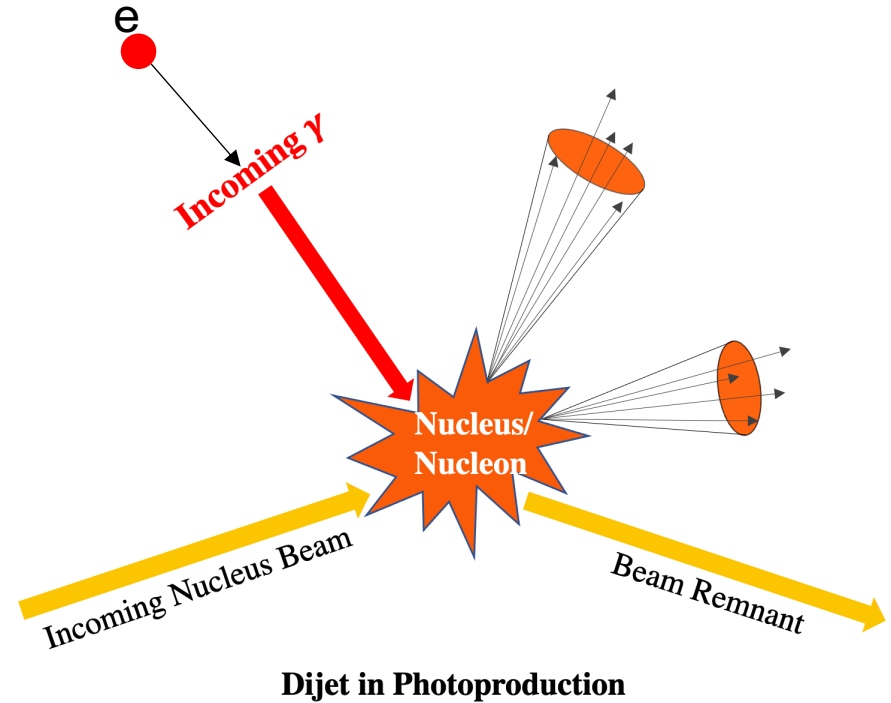
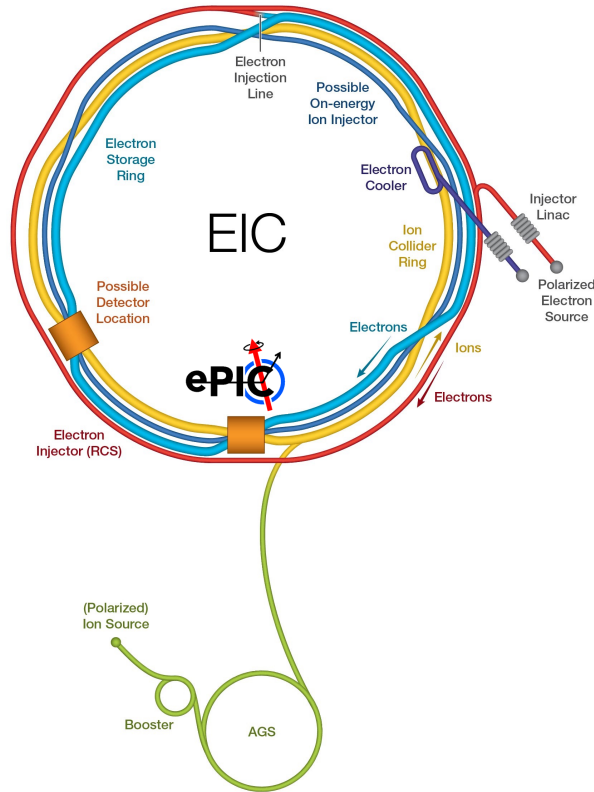
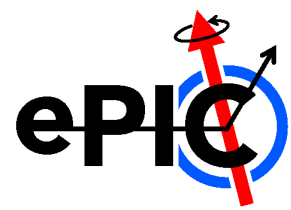
- Gluon density increases as the proton energy increase, at some point, the gluon density has to be tamped – gluon saturation (nonlinear QCD effects).
- Evidence for nonlinear QCD effects was observed at STAR.

My research at STAR



- Monitoring the pC polarimeters data acquisition during the RHIC runs and providing the beam polarization value as input for RHIC operations.
- 3-dimensional structure of the proton.

My research at the EIC



- IP6: ePIC detector design
- Jet physics at the EIC: proton structure, quasi-real photon structure

Thank you!