## He3 ABS Meeting - June 5, 2025

## Suitability of AGS for H-jet/He3 absolute polarization measurements

- Additional polarimeter measurement points in AGS (before entrance into RHIC/EIC)
- Fewer H-jet bunches, to the point where we can't make a meaningful measurement of absolute polarization (without an extended run period)
  - 10^12 per cm^2
  - Similar region (in terms of density and systematics) to He3
- Other ways to measure target polarization?
- May not correspond completely to He3 measurement
  - Goal is to show community that device is a new
  - 20% error would still be realistic; with this error we could claim increase in bunch frequency from AGS -> EIC would improve considerably (factor of ~30)
  - AGS temporary location for polarization measurement?

## Storage cell parameters and background simulation

- Background density: 4\*10^14 per cm^3
- Net Thickness: 4\*10^12 per cm^2
- Supports 20% error in measurement (for a measurement that takes a couple of hours)

### Wakefield

- Wakefield not a problem for AGS, possibly a concern for RHIC/EIC
  - For proton beam
  - Consideration for designing target chamber for cell
- Calculations of this?
  - In progress, Medani can work on this (has a talk related to this), worked on proton-Carbon

### Bates

- Quotes (?) for shimming magnets went up last week, 12 week timeline
- Quotes for vacuum braising for copper lines around cryogen
  - Hope is to start assembling cryolines in about two weeks

### LHS: old pot

RHS: new pot (larger, needs to have new copper lines braised on)



#### Wiki

- In progress, not quite ready yet
- RHIC spin page exists, but owned by someone who retired ~10 years ago, need to update this to a page for EIC polarimetry for electrons and hadrons
- For the time being keep using Indico until wiki is figured out

# Monthly BNL polarimetry meeting