Why a Fixed Target Program?

- Results from NA49 have been used to claim onset of deconfinement at $\sqrt{s_{NN}} = 7.7$ GeV.
- To test this claim STAR needs to access energies below 7.7 GeV where we expect no QGP formation.
- At these lower energies the luminosity of RHIC is too low, making it impractical to take data in collider mode.

Proof of Principle: Au + Al Beam Pipe Studies

- Successful fixed target test runs have been taken at different center of mass energies with both gold and aluminum beams.
- These test runs demonstrate that the STAR detector works well in this novel setup.
- Preliminary ratio results are consistent with previous experiments.
- The detector upgrades will allow us to extend the BES energies down to 3.0 GeV without sacrificing luminosity.

Conclusions

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