

Abstract Submitted
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Feasibility Study of QGP-like Jet Suppression Observable in RHIC p+p 500 GeV Dataset MICHAEL RIEHL¹, JUSTIN FRANTZ, Ohio University — Some signals of QGP have been observed in special high multiplicity p+p collisions at LHC energies but to date, none of these effects have been observed at RHIC energies. The highest RHIC p+p energy of 500 GeV presents an interesting candidate to look for such effects. Especially for the QGP-like jet quenching-like observables which have been hard to observe if seen at all even in larger (but still small numbers of nucleon) systems like p+A, where small effects would be expected, an observable which can reduce the systematics is desirable. This talk will discuss the possibility of using such an observable which has fortunately recently been applied with some success to some other RHIC data for the RHIC 500 GeV p+p runs, in terms of statistical feasibility, detector outlook for certain detectors such as PHENIX and sPHENIX, and importantly expectations for non-QGP-like physics in various version of the PYTHIA event generator.

¹prefer to be in same session as Justin Frantz talk

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