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Analysis of J/Psi Production in Run 12 pp200 at PHENIX
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— PHENIX recorded 4.5 billion proton-proton collisions at $\sqrt{s} = 200$ GeV during the most recent RHIC run. Using the data recorded from these collisions, we plan to measure the J/psi cross-section in the forward direction ($1.2 < |y| < 2.2$) by measuring pairs of muons and calculating the invariant mass spectrum. The J/psi mass peaks close to 3.1 GeV/c. Currently, we are working toward determining cuts which are used to reduce the non-muon backgrounds in di-muon continuum. Next, we embed muons simulated in Geant with a model of the detector into real events to determine the efficiency of our cuts. Finally we can apply the best cuts we've found to the real data and determine the J/psi yields for this year's data. Measurement of the J/psi yield in pp collisions at 200 GeV is valuable when comparing to yield in CuAu collisions where its production is expected to be suppressed as a result of color screening in the hot dense QGP. In my poster I will show the dependence of the J/Psi and background signals on the cuts applied, along with the cut's effeciency at reconstructing embedded simulation J/Psis.

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