

Abstract Submitted  
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*J/ψ* **Production Mechanism Measurements at PHENIX** TODD KEMPEL, Iowa State University, PHENIX COLLABORATION — Since the discovery of the *J/ψ* meson in 1974, several attempts have been made to model the mechanism for its production. No model has yet been able to describe all available data, but experimental progress can be made by making cross section measurements at different energies and polarization measurements for all accessible *J/ψ* transverse momenta. The capability of the RHIC accelerator to operate at high luminosities for center of mass energies of both 200 and 500 GeV gives an exciting opportunity for the PHENIX experiment to make a significant contribution to the search for a *J/ψ* production mechanism. The recent RHIC run at 500 GeV provides the first access to *J/ψ*s from p+p collisions at that energy. In addition to cross section and polarization measurements, *J/ψ* production from transversely polarized *p + p* collisions provides the potential for new probes of the production mechanism.

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