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The Physics of the PHENIX Muon Arms KENNETH READ, ORNL/ Univ. Tennessee, for the PHENIX Collaboration — The PHENIX Muon Arms subsystem is currently under construction. Highlights of the present status of preparation are presented. The expected performance and ability to address key PHENIX physics goals which rely heavily on the muon arms are discussed. This subsystem will be used to measure vector meson production at forward rapidities for masses ranging from that of the ϕ to the Υ in collisions ranging from $p+p$ to $Au+Au$. The mass resolution is sufficient to resolve the J/ψ from the ψ' and the $\Upsilon(1S)$ from the $\Upsilon(2S+3S)$. We can expect to detect approximately 1.5 million J/ψ per arm per RHIC-year of minimum-bias $Au+Au$ collisions. The two muon arms provide large acceptance for high mass pairs at central rapidity. In addition, they allow a rich program to investigate the spin structure of the nucleon using polarized proton beams.

[X] Prefer Oral Session
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