

Abstract Submitted
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Reduction of Background in Observation of W Decay Using FVTX Tracker in PHENIX¹ ABRAHAM MELES, Physics Department, New Mexico State University, Las Cruces NM 88003, PHENIX COLLABORATION — One of the highlights of the spin program at RHIC over the next few years is the observation of the parity-violating asymmetry A_L in the production of W bosons in $\vec{p} + \vec{p}$ collisions at $\sqrt{s} = 500$ GeV. This asymmetry is sensitive to the polarization of light quarks and anti-quarks in the proton. Observing the lepton (e or μ) from the decay of the W is challenging due to a great background of hadronic processes. In PHENIX, in the forward and backward hemispheres, the muon spectrometers have been recently upgraded in order to provide additional tracking information to suppress those backgrounds. One of those upgrades is the Forward Vertex (FVTX) detector, a silicon-strip tracker. The ability of the FVTX to improve W observation will be reviewed, and compared to real data from the first use of the FVTX in the RHIC 2012 run.

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