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Extracting W Single Spin Asymmetry in Longitudinally Polarized pp Collisions at PHENIX DANIEL JUMPER, University of Illinois at Urbana Champaign — The PHENIX experiment at RHIC has a goal of better constraining the sea quark contribution to the spin of the proton. This is accomplished by measuring the parity violating single helicity asymmetry in muons decayed from W bosons at forward rapidity in $\sqrt{s} = 500GeV$ longitudinally polarized pp collisions. Data toward this measurement has been accumulated over the past 3 years totaling about $310pb^{-1}$ integrated luminosity over the full collision vertex range. The largest contribution of $240pb^{-1}$ has come from this years dedicated pp run and analysis of this data is currently underway. A significant challenge of this analysis, however, is the dominance of background events over μ from W decay signal events of interest. To address this issue, a maximum likelihood technique is employed to select events with an increased signal to background fraction and obtain their asymmetry. This talk will present details of this technique as well as the progress of the 2013 data analysis work.

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