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## **Physics with the PHENIX muon trigger upgrade** BRETT FADEM, Muhlenberg College, PHENIX COLLABORATION — The upgrade of the PHENIX first level muon trigger will consist of new muon tracker front end electronics and a new dedicated trigger spectrometer with three resistive plate chambers stations in each PHENIX muon arm. This will make it possible to efficiently trigger on those polarized proton-proton collisions that result in the formation of a W-boson. PHENIX will use this capability to obtain spin sorted measurements of the charge dependent yields of W bosons. These measurements will allow us to determine flavor-separated quark and anti-quark polarizations in the proton.

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