

Abstract Submitted  
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**Single Transverse Spin Asymmetries for Forward Neutrons in  $\sqrt{s} = 200$  GeV p+p, p+Al and p+Au collisions at the PHENIX experiment at RHIC** DOUGLAS FIELDS, University of New Mexico, PHENIX COLLABORATION — The Zero-Degree Calorimeters (ZDCs) at RHIC detect neutrons along the beam direction on either side of each interaction point. An additional Shower Maximum Detector (SMD) provides position information of the hadronic shower. The combination of these allows each experiment to look at the phi-asymmetry of forward neutrons in relation to the transverse spin direction of the proton beam travelling in the direction of that ZDC. Large single-spin asymmetries have been previously reported in p+p collisions. During the RHIC Run-15, for the first time RHIC delivered polarized proton collisions with Au and Al, allowing for the determination of the single-spin asymmetries with these heavier (and more neutron rich) species. We will present the current status of these studies at the PHENIX experiment.

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