Abstract Submitted
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Charge-Asymmetry Dependence of Proton Elliptic Flow in 200 GeV Au+Au Collisions[1] RACHEL SMITH, UCLA/UIUC, STAR COLLABORATION — The chiral magnetic wave (CMW) is predicted to manifest a finite electric quadrupole moment in the quark-gluon plasma produced in high-energy heavy-ion collisions [1]. This quadrupole moment generates a divergence in the azimuthal anisotropy ($v2$) of positively and negatively charged particles such that $v2(+) < v2(-)$. This effect is proportional to the apparent charge asymmetry (Ach) of particles in the same rapidity window. The Ach dependence of $v2$ has already been observed in the cases of charged pions and kaons [2, 3]. We present preliminary STAR measurements of $v2$ for protons and anti-protons as a function of Ach from $\sqrt{}$sNN = 200 GeV Au+Au collisions for different centrality classes. The results are then compared with the previously reported results of pions and kaons. [1] Y. Burnier, D. Kharzeev, J. Liao and H. Yee, Phys. Rev. Lett. **107** (2011) 052303. [2] L. Adamczyk, *et al*, Phys. Rev. Lett.?**114**?(2015) 252302. [3] Q.-Y Shou, Nucl. Phys. A **931** (2014) 758.

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