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STAR measurements of elliptic flow in U+U collisions at $\sqrt{s_{NN}} =$ 193 GeV THOMAS CALLISTER, Carleton College, STAR COLLABORATION — The hot, dense nuclear medium created in Au+Au collisions at RHIC has exhibited strong, anisotropic collective motion, characterized by the elliptic flow v_2. v_2 has been extensively studied, and is thought to be related to the initial eccentricity of the colliding system and the parton density, quantified by 1/S*dN/dy. Collisions of heavier, deformed uranium nuclei will introduce different eccentricities, and will increase the achievable value of 1/S*dN/dy by 13% [1]. Simulations therefore predict central U+U collisions to yield a significant increase in v_2 over central Au+Au collisions [2], and also predict a cusp structure in v_2 vs. multiplicity due to the deformation of uranium [3]. STAR has taken data of U+U collisions at $\sqrt{s_{NN}} = 193$ GeV in RHIC run2012. In this poster we present preliminary STAR measurements of v_2 from these collisions. Physics implications of our measurements will also be discussed.

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[2] H. Masui, B. Mohanty, N. Xu, Phys. Lett. B679 (2009) 440.

[3] S. Voloshin, Phys. Rev. Lett.105 (2010) 172301.

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