

Abstract Submitted  
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**Study of the Beam Energy Dependence of Azimuthal Anisotropy Coefficients and Non-Flow Effects in Small System d+Au Collisions at RHIC**<sup>1</sup> PENGQI YIN, Univ of Colorado - Boulder — Recent measurements of azimuthal anisotropy,  $v_n$ , in collision systems such as p,d,3He+Au suggest that a quark gluon plasma (QGP) may be formed in these small systems, which would be an unexpected discovery. However, this QGP lives for a shorter time than in larger A+A systems and it is not clear how the azimuthal anisotropy signals develop. Varying the collision energy in d+Au collisions can help to answer this question. However, non-flow effects are more dominant in small systems and must be accounted for in order to draw conclusions. We will show theoretical calculations of  $v_2$  and  $v_3$  in d+Au using different models at several collision energies, and we will present a method based on reference fitting to estimate the non-flow component in actual measurements so that they might be better compared to the theory. (Based on work published in J. D. Orjuela Koop, R. Belmont, P. Yin, and J. L. Nagle Phys. Rev. C 93, 044910 – Published 22 April 2016)

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