

Abstract Submitted  
for the APR21 Meeting of  
The American Physical Society

**Identified particle  $v_1$  and  $v_2$  in  $\sqrt{s_{NN}} = 3$  GeV Au+Au collisions at STAR** SOORAJ RADHAKRISHNAN, Kent State University, STAR COLLABORATION — Directed flow ( $v_1$ ) and elliptic flow ( $v_2$ ) are important observables in the relativistic heavy-ion collisions, as they are established during the early stage of the system evolution, which can allow us to access the collective properties of the expanding system. This is an important part of our program for studying the QCD phase structure at RHIC. In this talk, we will present the centrality dependence of identified particle ( $\pi^\pm$ ,  $K^\pm$ , p)  $v_1$  and  $v_2$  in Au+Au collisions at  $\sqrt{s_{NN}} = 3$  GeV with the fixed-target mode (beam energy of 3.85 GeV/A) at STAR. The transverse momentum and rapidity dependence of identified particle  $v_1$  and  $v_2$  will be discussed. We will also discuss the number of constituent quark (NCQ) scaling in  $v_2$  and energy dependence of  $v_1$  and  $v_2$ . These results will be compared to those from STAR BES-I data. In addition, model calculations of  $v_1$  and  $v_2$  for those identified hadrons will also be compared to our results.

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Date submitted: 08 Jan 2021

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