

1 Triangular Flow of Identified Particles in Fixed Target
2 Au+Au Collisions at STAR

3 Cameron Racz
4 (for STAR Collaboration)

5 *University of California, Riverside*

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7 **Abstract**

8 Directed and elliptic flow have been extensively studied in heavy-ion collisions while
9 triangular flow (v_3) could be further explored. v_3 could prove very useful as a signal for
10 Quark-Gluon Plasma (QGP) formation due to its link to viscosity and the possibility
11 that it is less affected by transport dynamics at very low energies [1]. This poster
12 presents the current progress of an analysis on v_3 for π , K , p , d , and t at the fixed
13 target energies of $\sqrt{s_{NN}} = 3.0$ GeV and 7.2 GeV from phase-II of the Beam Energy
14 Scan at STAR. The results include a correlation between v_3 and the first-order event
15 plane and a clear rapidity-odd v_3 for p . This is the first in a series of collision energies at
16 STAR below and above the QGP phase transition where triangular flow for identified
17 particles will be studied.

18 **References**

- 19 [1] J. Auvinen and H. Petersen. Evolution of elliptic and triangular flow as a function of
20 $\sqrt{s_{NN}}$ in a hybrid model. *Phys. Rev. C*, 88:064908, 2013.