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

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

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

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