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Observation of collectivity in p+Au, d+Au and ³He+Au collisions with PHENIX

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In order to investigate the origin of collectivity in small systems, the PHENIX experiment has collected data of p+Au, d+Au and ³He+Au collisions at 200 GeV, giving a unique set of initial geometries. In this talk we present a complete set of elliptic and triangular flow measurements, which taken together provide unprecedented model discrimination between initial-state momentum correlation effects and final-state effects. This talk also covers the elliptic anisotropies measured in the d+Au beam energy scan, with collision energies ranging from 200 GeV to 19.6 GeV. The d+Au beam energy scan data leaves the intrinsic geometry unchanged but varies the system lifetime and the duration of the possible QGP phase. Measurements of $v_2(p_T)$ and $v_2(\eta)$ at different energies provide important insights about the system dynamics and allow further input for model comparison.

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