# Probing the QCD phase structure with elliptic flow in Au + Au collisions at $\sqrt{s_{\rm NN}}$ = 7.7 - 19.6 GeV at RHIC

**Xing Wu (for the STAR Collaboration)**

**Central China Normal University**

Elliptic flow ($v_2$) is the second Fourier expansion coefficient of azimuthal distributions of produced particles in heavy-ion collisions. It is sensitive to the dynamics of heavy-ion collisions at the early stage of system evolution and the degrees of freedom of the medium.

With the enhanced statistics datasets from the second phase of RHIC Beam Energy Scan (BES-II) program at STAR, measurements of $v_2$ for $\pi^{\pm}$, $K^{\pm}$, $K^0_s$, $p$, $\bar{p}$, $\phi$, $\Lambda$, $\bar{\Lambda}$, $\Xi^{\pm}$ and $\Omega^{\pm}$ at $\sqrt{s_{NN}}$ = 7.7 - 19.6 GeV are presented in this poster. And we will show the Number of Constituent Quark (NCQ) scaling separately for particles and anti-particles. The NCQ scaled $v_2$ ratios of $\pi^+/K^+$, $p/K^+$, $\pi^-/K^-$, $\bar{p}/K^-$, $\phi/K^-$, $\Lambda/K^0_s$, $\bar{\Lambda}/K^0_s$ with the range of $\sqrt{s_{NN}}$ = 7.7 - 19.6 GeV will also be discussed.