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Event anisotropy in high-energy heavy-ion collisions at RHIC

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The high p_T suppression and the baryon/meson scaling of the nuclear modification factor as well as the quark number scaling of the measured elliptic flow parameter at intermediate p_T region are the most exciting findings in high-energy heavy-ion collisions at RHIC. This observation is one of the strongest evidences to support the formation of quark gluon plasma (QGP). The detailed study on event anisotropy and analysis of azimuthal particle correlation especially as a function of p_T , centrality, particle species, collision system size and beam energy would enable us to understand the mechanism of the observed scaling behavior. The results of such systematic study will be shown and the possible origin of the elliptic flow will be investigated and discussed.