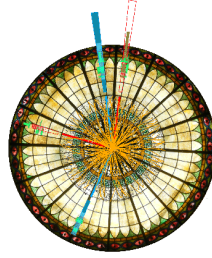


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Measurement of soft photon collective flow in $\sqrt{s_{NN}}=200\text{GeV}$ Au+Au collisions at RHIC-PHENIX

Wednesday 29 April 2015 08:30 (20 minutes)

Direct photons are very interesting probes because they are not modified once created and emitted during all stages of the collisions.

Especially soft photons have been actively measured to study the hot and dense medium (QGP) created in high energy heavy ion collisions.

It is expected that direct photons have different angular emission patterns depending on their production mechanisms.

Previous PHENIX results indicate that photons have non-zero and positive v_2 at low momentum, and the strength of v_2 is comparable to that of hadrons at around 2 GeV/c.

The photon production mechanisms in low p_T region have not been well understood, and measurement of third order azimuthal anisotropy (v_3) is expected to provide additional information to constrain the production mechanisms.

In this talk, we will discuss the recent PHENIX results on centrality dependence of the photon v_2 and v_3 in $\sqrt{s_{NN}}=200$ GeV Au+Au collisions at RHIC-PHENIX.

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