

# 10th International Conference on Hard and Electromagnetic Probes of High-Energy Nuclear Collisions



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## Neutral pion $v_2$ at low and high $p_T$ in Central dAu collisions measured with PHENIX at the RHIC top energies

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The observation of multiparticle correlations in heavy ion collisions are usually associated to collective behavior in the formed medium. Recent results at RHIC provide strong arguments for QGP formation in smaller systems.

In this poster, I present the status of the neutral pion second harmonic coefficient  $v_2$  as a function of transverse momentum at low and high  $p_T$  for very central d+Au collisions at 200 GeV. At low  $p_T$  the  $v_2$  is sensitive to the hydrodynamic flow; while at high  $p_T$ ,  $v_2$  is sensitive to the in-medium path length dependence thus allowing to constrain what.

The data was recorded during the 2016 operational period in PHENIX. The analysis makes use of the central rapidity electromagnetic calorimeter. These results provides strong insight into the dynamics governing the evolution of the fireball at such scales.

### Collaboration (if applicable)

PHENIX

### Track

Jets and High Momentum Hadrons

### Contribution type

Poster

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