

XXVIII International Workshop on Deep Inelastic Scattering and Related Subjects



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Low p_T direct photon measurements at PHENIX experiment

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PHENIX has made a comprehensive measurement of low p_T direct photon yield in Au+Au collisions at 200 GeV that show both a large yield and a large azimuthal anisotropy produced. The mechanism for such simultaneous large production is not well understood yet.

Recently the PHENIX collaboration has improved on those measurements by using the Au+Au data collected in 2014 which provides a 10-fold increase in statistics. Furthermore, PHENIX has found that the low p_T direct photon yield $dN_\gamma/d\eta$ is proportional to $(dN_{ch}/d\eta)^\alpha$. This scaling holds for beam energies both at RHIC and at the LHC in large-on-large systems. An extrapolation to smaller systems suggests an onset of QGP formation at low $dN_{ch}/d\eta$.

In this talk I will show the most recent results on direct photon measurements from large and small systems.

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Session Classification: QCD with Heavy Flavors and Hadronic Final States

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