

Electromagnetic Radiation probing the Space-Time Evolution of Heavy ion collisions

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Over the past years PHENIX has published multiple results on electron-positron pairs and direct photons from Au+Au collisions, which reveal a number of puzzling and not understood features. First measurements of direct photons at momenta below 3 GeV point towards a significant thermal yield consistent with initial temperatures well above the transition temperature. However, this thermal source shows large azimuthal momentum anisotropy, seemingly inconsistent with early emission. In addition, dilepton production below a mass of 1 GeV is significantly larger than can be attributed to the thermal source. These excess dileptons exhibit a soft momentum spectrum with an inverse slope of less than 100 MeV. In this talk we will present and discuss the latest results from PHENIX.

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