

Abstract Submitted
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Elliptic flow of thermal photons in relativistic heavy ion collisions using hydrodynamics EVAN FRODERMANN, The Ohio State University — The elliptic flow v_2 of particles is one of the significant signatures of a thermally expanding fireball in off-central relativistic heavy ion collisions. Typically, v_2 is calculated for particles such as pions which decouple from the thermal medium at late times. Photons, however, decouple from the medium upon creation, carrying information for the full fireball duration, particularly information about the early QGP phase. We explore the elliptical flow of photons from Au+Au collisions, using an ideal hydrodynamical model to describe the collision. We show that the p_T dependence of photon elliptical flow is quite different from that of hadrons, in that it decreases at high p_T , reflecting the weak elliptic flow during the early collision stages (whereas the hadronic elliptic flow reflects the late collision stage and increases with p_T).

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