

Abstract Submitted  
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**Conformal anomaly and photon anisotropy in heavy ion collisions**<sup>1</sup> GOKCE BASAR, Stony Brook University, DMITRI KHARZEEV, Stony Brook University & Brookhaven National Laboratory, VLADIMIR SKOKOV, Brookhaven National Laboratory — I introduce a novel mechanism for anisotropic photon production in heavy ion collisions, stemming from the interplay between anomalies of QCDxQED and the existence of strong (electro)magnetic fields. For the case of conformal anomaly, using the hydrodynamical description of the bulk modes of QCD plasma, I show that this mechanism leads to the photon production yield that is comparable to the yield from conventional sources. Furthermore, this mechanism provides a significant positive contribution to the azimuthal anisotropy of photons ( $v_2$ ) and shows agreement with the PHENIX data.

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