

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



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## Direct Photon and $\pi^0$ Identification in Au+Au Collisions at $\sqrt{s_{NN}} = 200$ GeV in the STAR Experiment

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Jets recoiling from a direct-photon have long been seen as a golden probe of the quark gluon plasma created in relativistic heavy ion collisions, due to the ability to tightly constrain the initial hard scattering kinematics. Until recently, the ability to measure this channel and the ensuing observables at RHIC were largely statistics-limited, owing to the small cross-section of direct photon production compared to, for example, the most abundant di-jet cross-section. In this poster, we will present methods for identifying direct photons and  $\pi^0$ , using the  $13 \text{ nb}^{-1}$  of  $\sqrt{s_{NN}} = 200$  GeV Au+Au data recorded in 2014 by the STAR experiment.

### Collaboration (if applicable)

STAR

### Track

Jets and High Momentum Hadrons

### Contribution type

Poster

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