

(講演番号) 27pWB-8

(題目) RHIC-PHENIX 実験における

$\sqrt{s_{NN}}=200\text{GeV}$ 金+金衝突下での直接光子の測定

所属) 東大 CNS

(氏名) 磯部忠昭 for the PHENIX Collaboration

(英文題目) Measurement of direct photon in $\sqrt{s_{NN}}=200\text{GeV}$ Au+Au collisions at RHIC-PHENIX

(英文所属) CNS, Univ. of Tokyo

(英文氏名) T. Isobe for the PHENIX Collaboration

Since photons do not interact strongly, direct photons are a powerful probe to study the initial state of matters produced from relativistic heavy ion collisions. They are emitted from all the states such as the initial state, the Quark-Gluon Plasma (QGP), and the final hadron-gas state. In addition, the yield of photons provides an excellent input to theoretical predictions because photons are produced only from Compton scattering of quarks and gluons, annihilation of quarks and anti-quarks, or bremsstrahlung, which have no ambiguity arising from uncertainties on hadronization process.

PHENIX recorded high-statistics Au+Au data set in 2004 Run. The new data set allows us to measure direct photon beyond $p_T=10$ GeV/c and also at intermediate p_T where thermal photons and photons from jet-plasma interactions are important. In this talk, we report the present status of the analysis of RUN4 data set.

E-mail: isobe@cns.s.u-tokyo.ac.jp