Measurement of $J/\psi \to e^+e^-$ in Au+Au collisions at $\sqrt{s_{NN}} =$ 200GeV at RHIC-PHENIX

Kyoichiro Ozawa[a] for the PHENIX Collaboration
[a] *CNS, University of Tokyo*

Recently, a phase transition from hadronic matter to a plasma of deconfined quarks and gluons, has attracted wide interest in the field of hadron physics. There are several experimental efforts to achieve such a new state of matter, Quark Gluon Plasma (QGP). Among these efforts, relativistic heavy ion collisions at Relativistic heavy ion collider (RHIC) at Brookhaven National Laboratory (BNL) is expected to produce such a phase transition. The PHENIX experiment at RHIC has been successfully operated in Year-2001 run, and measured many observables in Au+Au collisions at $\sqrt{s_{NN}} = 200$GeV.
Among many observables, J/ψ is a particular interest. The yield of J/ψ (one of the charmoniums) is considered to be suppressed by the color screening effect due to other quarks in QGP state. There have been several experiments that were dedicated to measure J/ψ in muon decay channel, but that in electron decay channel is the first measurement realized by PHENIX.
The presentation will report the latest status of analysis of $J/\psi \to e^+e^-$ in Au+Au collisions at PHENIX in Year-2001.