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Are charmed mesons thermalized in heavy ion collisions at RHIC and LHC?

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Studying the charmed hadron production is a particularly useful tool to
probe properties of hot and dense matter created in ultrarelativistic
heavy ion collisions. It allows one also to extract the information about mechanisms of
in-medium heavy quark thermalization. In this talk, the phenomenological
analysis of various characteristics of charmed hadrons (J/Psi and D mesons) in heavy ion collisions at RHIC
and LHC has been done in the frameworks of two-component HYDJET++ model. Among other heavy ion
event generators, HYDJET++ focuses on
the detailed simulation of jet quenching effect taking into account
medium-induced radiative and collisional partonic energy loss (hard
"non-thermal" component), and also reproducing the main features of nuclear
collective dynamics by the parametrization of relativistic hydrodynamics
with preset freeze-out conditions (soft "thermal" component). The charmed
meson production pattern in heavy ion collisions at RHIC and LHC is reproduced by
HYDJET++ simulations. The possibility of thermalization of J/Psi and D mesons at RHIC and LHC energies is
discussed.

On behalf of collaboration:

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