

# Quarkonia production in relativistic heavy ion collisions

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Using the hydrodynamic model to describe the dynamics of heavy ion collisions, we have studied quarkonia production in these collisions by including both their dissociation in initial cold nuclear matter and subsequently produced quark-gluon plasma [1-4]. For the latter, we used the screened Cornell potential and the next-to-leading order perturbative QCD to determine, respectively, their in-medium properties and dissociation cross sections. Our results for the dependence of the quarkonia nuclear modification factors on the collision centrality as well as the quarkonia transverse momentum indicate that including medium modifications of the quarkonia properties in the quark-gluon plasma gives a better description of the experimentally data measured at SPS, RHIC and LHC.

## References

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