

Charmonium dynamics in the UrQMD transport model

We study charmonium physics in heavy-ion collisions within the framework of the non-equilibrium transport model UrQMD.

Using this model we compute different heavy quark observables like the nuclear modification factor R_{AA} , high p_T suppression and the elliptic flow v_2 .

The UrQMD approach includes explicit interactions of the charmed particles with the surrounding medium.

Different cross sections for charmonium dissociation and charmonium recombination by D-Mesons are tested at SPS, RHIC and LHC energies.

We show that these results are in good agreement with measurements at the different collision energies.

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Track Classification: Heavy flavor and quarkonia production