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Dimuon Mass Continuum in Pb Pb collisions at $\sqrt(s_{NN})$=2.76 TeV

Content :

The dilepton invariant mass spectrum measured in heavy ion collisions holds the most promising signatures of the QGP, such as thermal radiation, J/ψ, Ψ' and Υ. The dilepton probe is sensitive to many different sources. In the low mass region, the resonance decays from the light hadrons constitute the main background. In the intermediate and high mass regions, the Drell-Yan dilepton production from the initial hard scattering is important. In high energy heavy ion colliders such as RHIC and LHC, the heavy flavor quark production is quite substantial and their subsequent decays in semileptonic channels lead to a large production of the dileptons.
In the present study we estimate contributions from all dileptons sources for PbPb collisions at $\sqrt(s_{NN})$ = 2.76 TeV. The dileptons coming from QGP and hadron phases are calculated using thermal model. This is compared with the dileptons from open charm, open bottom and Drell Yan contributions. The relative contribution of diifferent sources have been studied in different kinematical ranges relevant for detectros used at LHC.

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