Abstract

We show that the one order of magnitude discrepancy between the observed cross section and calculational results for J/ψ in the color singlet scenario may be improved partly by introducing the Fermi motion in its fragmentation production. We have used a light cone wave function to introduce the Fermi motion. The results are compared to the CDF data and also predict the production of this state at Tevatron Run II. Similar study is carried out in the case of RHIC and CERN LHC colliders. It is revealed that while the effect is more striking in the case of Tevatron and CERN LHC, it is less important at RHIC.