Quark Matter 2015 - XXV International Conference on Ultrarelativistic Nucleus-Nucleus Collisions



Contribution ID: 35 Type: Poster

Magnetic Field Effect on Charmonium Formation in High Energy Nuclear Collisions

Tuesday, 29 September 2015 16:30 (2 hours)

It is important to understand the strong external magnetic field generated at the very beginning of high energy nuclear collisions. We study the effect of the magnetic field on the anisotropic charmonium formation in Pb+Pb collisions at the LHC energy. The time dependent Schrodinger equation is employed to describe the motion of $c\bar{c}$ pairs. We compare our model prediction of the non-collective anisotropic parameter v2 of J/ψ with CMS data at high transverse momentum. This is the first attempt to measure the strong magnetic field at the very initial stage of high energy nuclear collisions.

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Session Classification: Poster Session

Track Classification: Quarkonia