

Measurement of J/ψ energy correlator in p+p collisions at $\sqrt{S} = 500$ GeV at STAR



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Abstract

We present the first measurement of the J/ψ energy correlator in hadron collisions. The study is conducted by reconstructing the J/ψ via its di-electron decay channel at mid-rapidity (|y| < 1), within the transverse momentum range of $5 < p_T < 10$ GeV/c, in proton-proton collisions at $\sqrt{s} = 500$ GeV at RHIC-STAR experiment. By comparing J/ψ energy correlator with theoretical calculations, we aim to provide energy release information during the J/ψ production process and a robust basis for distinguishing among the existing J/ψ production models.







Collaboration