

EPR entanglement and decoherence in Upsilon(4S) decays to B⁰-B⁰bar

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The neutral B-meson pair produced at Upsilon(4S) exhibits a non-local EPR-type entanglement. At Belle experiment at KEK, we measure this entanglement using time-dependent flavour asymmetry of semileptonic B⁰ decays and compare with prediction of quantum mechanics and two realistic models. We also measure the decoherence of the neutral B-meson pair in B⁰-B⁰bar and BH-BL basis.

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Classifica Sessioni: Session IV

Classificazione della track: CPT and QM tests