New measurements of the J/ψ decay in nucleon-antinucleon

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Abstract

The Branching ratios of the J/ψ decay in both neutron–antineutron and proton–antiproton have been measured by the FENICE experiment at the e^+e^- collider Adone in Frascati. The result concerning the decay in neutron–antineutron improves by a factor 2 the uncertainty on this decay. An analysis of these decays in terms of the interference between the strong and the electromagnetic contributions show unexpectedly no interference between them. The implications and the connections with other results on the J/ψ decays are discussed. Finally a direct measurement of the interference pattern between the strong and the electromagnetic contributions is proposed.