

06 QUARKONIUM DECAYS

Measurement of J/ψ leptonic width with the KEDR detector

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摘要

We report a new precise determination of the leptonic widths of the J/ψ meson performed with the KEDR detector at the VEPP-4M e^+e^- collider. The measured values of the J/ψ parameters are: $\Gamma_{ee} \times \Gamma_{ee} / \Gamma = 0.3323 \pm 0.0064$ (stat.) ± 0.0048 (syst.) keV, $\Gamma_{ee} \times \Gamma_{\mu\mu} / \Gamma = 0.3318 \pm 0.0052$ (stat.) ± 0.0063 (syst.) keV. Assuming $e\mu$ universality and using the table value of the branching ratios the leptonic $\Gamma_{ll} = 5.59 \pm 0.12$ keV width and the total $\Gamma = 94.1 \pm 2.7$ keV widths were obtained. We also discuss in detail a method to calculate radiative corrections at a narrow resonance.

关键词 [J/ψ meson, lepton width, full width](#)

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