



Contribution ID: 192

Type: Poster

Measurement of $\Gamma_{ee}(J/\Psi) \cdot \text{Br}(J/\Psi \rightarrow ee)$ and $\Gamma_{ee}(J/\Psi) \cdot \text{Br}(J/\Psi \rightarrow \mu\mu)$

The products of the electron width of the J/ψ meson and the branching fraction of its decays to the lepton pairs were measured using data from the KEDR experiment at the VEPP-4M electron-positron collider. The results are $\Gamma_{ee}(J/\psi)\text{Br}(J/\psi \rightarrow e^+e^-) = (0.3323 \pm 0.0064 \pm 0.0048) \text{ keV}$, $\Gamma_{ee}(J/\psi)\text{Br}(J/\psi \rightarrow \mu^+\mu^-) = (0.3318 \pm 0.0052 \pm 0.0063) \text{ keV}$. Their combinations $\Gamma_{ee}(\Gamma_{ee} + \Gamma_{\mu\mu})/\Gamma = (0.6641 \pm 0.0082 \pm 0.0100) \text{ keV}$, $\Gamma_{ee}/\Gamma_{\mu\mu} = 1.002 \pm 0.021 \pm 0.013$ can be used to improve the accuracy of the leptonic and full widths and test leptonic universality. Assuming e/μ universality and using the world average value of the lepton branching fraction, we also determine the leptonic $\Gamma_{ll} = 5.59 \pm 0.12 \text{ keV}$ and total $\Gamma = 94.1 \pm 2.7 \text{ keV}$ widths of the J/ψ meson.

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Track Classification: 05 - Heavy Quarks Properties (experiment and theory)