

## Search for the lepton flavor violating decay

$$J/\psi \rightarrow e\mu$$

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We present a search for the lepton flavor violating decay  $J/\psi \rightarrow e\mu$  using  $8.998 \times 10^9$   $J/\psi$  events collected with the BESIII detector at the BEPCII  $e^+e^-$  storage ring. No excess of signal above background is observed; we therefore set an upper limit on the branching fraction of  $J/\psi \rightarrow e\mu < 4.5 \times 10^{-9}$  at the 90% confidence level. Improving the previous best result by a factor of more than 30, this measurement places the most stringent limit to date on lepton flavor violation in the heavy quarkonium sector.

### Category

poster

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