

## Search for rare decays at BESIII

Thursday, 18 August 2022 19:30 (25 minutes)

The BESIII experiment has collected 2.6B  $\psi(2S)$  events and 10B  $J/\psi$  events. The huge data sample provide an excellent chance to search for rare processes in charmonium decays. In this talk, we report the recent search for  $J/\psi \rightarrow \phi e^+ e^-$ ,  $D^- e^+ \nu_e$ . The big charmonium sample also produce millions of hyperons, which is used to study the weak decay of  $\Sigma^- \rightarrow p e^- e^- / \Sigma^+ X$ ,  $\Xi^- \rightarrow \Xi^0 e^- \nu_e$ . The LNV/BNV processes  $J/\psi \rightarrow \Lambda_c e^-$ ,  $D \rightarrow K \pi e e$ ,  $D^- \rightarrow \Lambda / \Sigma e$ ,  $J/\psi \rightarrow e \tau / e \mu$ ,  $D^0 \rightarrow p e$  are also searched. In addition, we also search for the FCNC process  $D^0 \rightarrow \pi^0 \nu \bar{\nu}$  at BESIII.

### Category

talk

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**Session Classification:** Session 3