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Search for BNV process $J/\psi \rightarrow \Lambda_c^+ \mu^- + c.c.$ XIANGYU XU, Nankai University, XIQING HAO, Henan Normal University, MINGGANG ZHAO, Nankai University — The simultaneous baryon and lepton number violation process is a good indication for beyond-standard-model (BSM) physics. By analyzing a large number of events accumulated in e^+e^- collisions at BESIII detector of BEPCII collider, a search for $J/\psi \rightarrow \Lambda_c^+ \mu^- + c.c.$ process will be performed to calculate the branching ratio (\mathcal{B}), or its upper limit if no event is found. This research is about the analysis of MC simulation and data from BESIII and BESIII's offline software system. Different limits and cuts applied on detected particles and tracks will give the count of the focused decay mode, also they will wipe out background influence, with which the branching ratio of the decay mode can be calculated. Then, fitting to the signal shape gives the fraction and energy region that is supposed to be the same as that of J/ψ 's. Besides, the calculation of systematic uncertainty is also taken into consideration and is part of the final result.

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