

An experiment to search for mu-e conversion at J-PARC MLF in Japan, DeeMe experiment

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Charged lepton flavor violation (CLFV) is a good probe for new physics beyond the standard model of elementary particle physics.

The DeeMe experiment is going to search for one of the CLFV processes, mu-e conversion in a nuclear field, with a sensitivity of 10^{-14} , ten times higher than current limits.

The experiment utilizes a fast-extracted proton beam from a Rapid Cycling Synchrotron (RCS) in J-PARC and a production target in Materials and Life Science Experimental Facility (MLF) as a material that muonic atoms are formed.

The overview of the experiment and the current status will be presented.

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