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## Large extra dimension at JUNO

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We use the JUNO experiment which is a reactor neutrino experiment to constrain the parameters of the Large Extra Dimension (LED) model. The parameters of this model are the radius of extra dimension  $R_{LED}$  and the lightest neutrino mass  $m_0$ . We select the JUNO experiment because its aim is to determine the hierarchy of the neutrino masses and for this it will simultaneously measure the oscillations due to the parameters  $\Delta m_{21}^2$  and  $|\Delta m_{32}^2|$  and also the mixing angles  $\theta_{12}$  and  $\theta_{13}$  using a resolution on the visible energy of the positrons of 1% at 1 MeV. The LED model used in this work considers that neutrinos are Dirac neutrinos, the space-time structure of our universe is  $4 + 1$  that is: four flat spatial dimensions where the extra spatial dimension is compactified in a circle of radius  $R_{LED}$  and the 1 indicates a time dimension. We expect the results obtained in the parameters  $R_{LED}$  and  $m_0$  from this analysis will be slightly more restrictive than previous work already done due to the energy resolution of the JUNO experiment.

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