

Solar vectors at the JUNO detector

Monday, 12 June 2023 16:30 (20 minutes)

I will describe the sensitivity reach of the next-generation large underground neutrino oscillation experiment Jiangmen Underground Neutrino Observatory (JUNO) in order to detect the 5.49 MeV hidden vector flux produced in the $p(d, {}^3\text{He})\gamma'$ nuclear reaction. Based on the JUNO's energy resolution capability and detector volume, we perform a systematic analysis and forecast the sensitivity, considering mass vs coupling strength in a model-independent and phenomenological way.

Secondary category for the parallel session (optional)

Dark Matter Physics

Primary author: Dr YUN, Seokhoon (University of Padova & INFN Padova)

Co-authors: Prof. D'ERAMO, Francesco (University of Padova); Mr LUCENTE, Giuseppe (INFN Bari); Dr NATH, Newton (INFN Bari)

Presenter: Dr YUN, Seokhoon (University of Padova & INFN Padova)

Session Classification: Parallel: Astroparticle 1

Track Classification: Parallel Sessions: Astroparticle physics