Journées de Rencontre Jeunes Chercheur se s 2024



ID de Contribution: 71 Type: Non spécifié

Development of a muon reconstruction algorithm for JUNO using all the sub-detectors

vendredi 29 novembre 2024 11:00 (30 minutes)

JUNO is an experiment designed to resolve the mass ordering of the neutrinos. It consists of a main detector containing 20 kt of Liquid Scintillator with which the neutrinos will interact, and two other veto detectors.

Cosmogenic isotopes, produced by the passage of cosmic muons, are one of the biggest sources of background for JUNO. To reject these events, without missing any neutrino events, we need to know when a muon enters the detector, and what is its trajectory. To this end, several methods have already been put in place, but all using only one detector. This presentation will therefore explore the construction of a method allowing us to use all detectors at the same time, and thus increase our precision.

Orateur: RAYMOND, Thomas (IPHC)

Classification de Session: Neutrino physics