ID de Contribution: **10** Type: **Non spécifié**

Development of a high pressure single-anode radial TPC for the search of 2β0ν decays

jeudi 8 juin 2023 11:30 (25 minutes)

The objective of R&D R2D2 is to develop a very simple TPC filled with pressurized xenon for the search of neutrinoless double beta decays (2β0ν). We tested several chamber concepts - spherical (SPC) or cylindrical (CPC) geometries - with an argon-methane gas mixture at pressures up to 8 bars. We report the results obtained in ionization and proportional modes, especially in terms of signal shape and energy resolution. Furthermore, based on both an in-house simulation for the signal formation and our experimental observations, we have studied the possibilities of localization and discrimination of the interaction tracks within these detectors. Future developments will also be presented.

Auteur principal: LAUTRIDOU, Pascal (CNRS-IN2P3)

Orateur: LAUTRIDOU, Pascal (CNRS-IN2P3)

Classification de Session: 0vbb - session 2, Chair Yajing Xing