Contribution ID: **297** Type: **Talk**

【377】Latest results from the XENONnT dark matter experiment

Friday 13 September 2024 15:00 (15 minutes)

The XENONnT detector, hosted at the Laboratori Nazionali del Gran Sasso in Italy, is at the forefront of direct dark matter searches in the form of Weakly Interacting Massive Particles (WIMPs). Instrumented with an active target of 5.9 tonnes of liquid xenon (LXe), XENONnT employs a dual-phase time projection chamber designed to detect dark matter particles through its interactions with LXe atoms. Due to its exceptionally low background level, the physics reach of XENONnT has expanded from direct detection of dark matter to a variety of rare event searches such as solar neutrinos, bosonic dark matter, solar axions and rare nuclear decays. In this contribution, I will present an overview of the XENONnT detector and its latest scientific results.

Author: CIMENTAL CHAVEZ, Paloma

Presenter: CIMENTAL CHAVEZ, Paloma

Session Classification: Nuclear, Particle- & Astrophysics (TASK)

Track Classification: Nuclear, Particle- and Astrophysics (TASK)