Contribution ID: **121** Type: **Oral**

Progress of solar pp neutrino search with XENONnT

Tuesday, August 26, 2025 2:40 PM (20 minutes)

The XENONnT experiment, located at Laboratori Nazionali del Gran Sasso (LNGS), is a dark matter experiment using a dual-phase time projection chamber with 8.5 tonnes of xenon. Solar neutrinos, dominated by the proton-proton (pp) neutrinos, can scatter elastically with electrons and produce electronic recoils (ER) detectable to XENONnT down to the keV scale. The ER background in XENONnT has been suppressed to an extremely low level by reducing the radioactive Rn-222 and Kr-85 backgrounds. In this talk, I will present the progress towards the first measurement of solar pp neutrinos with XENONnT.

Collaboration you are representing

XENON

Author: Prof. YE, Jingqiang (The Chinese University of Hong Kong, Shenzhen)

Presenter: Prof. YE, Jingqiang (The Chinese University of Hong Kong, Shenzhen)

Session Classification: Neutrino Physics and Astrophysics

Track Classification: Neutrino Physics and Astrophysics