



Contribution ID: 69

Type: **Talk**

New SiPM technology for light detection in DarkSide-20k

Friday 9 September 2022 11:20 (20 minutes)

DarkSide-20k is the nearest goal of the Global Argon Dark Matter Collaboration program and will be operated in Hall C of Gran Sasso National Laboratory. It consists of a multi-ton ultra-low background dark matter detector, based on a dual phase Time Projection Chamber filled with low radioactivity argon instrumented with cryogenic photosensors. Among of the the key features of the experiment there are the Silicon Photo Multiplier (SiPM) array configuration in compact large area tiles integrated with the related front-end electronics in 20 x 20 cm² Photo Detection Units that will cover more than 21m² of the surface detector and the full scale production of 10000 tile modules in the Nuova Officina Assergi (NOA), the 420 m² clean room realized at LNGS.. Here we will report a full SiPM characterization at 77K, the Photo Detection Unit design, assembly and performance and the status of the NOA facility.

Is this abstract from experiment?

Yes

Name of experiment and experimental site

DarkSide-20k

Is the speaker for that presentation defined?

Yes

Details

Dr. Lucia Consiglio, INFN Laboratori Nazionali del Gran Sasso

Internet talk

Maybe

Author: CONSIGLIO, Lucia (INFN)

Presenter: CONSIGLIO, Lucia (INFN)

Session Classification: Cosmology, Astrophysics, Gravity, Mathematical Physics