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Alessandro Razeto (LNGS, INFN, Italy): SiPM at cryogenic temperature for dark matter

Friday, 23 February 2018 15:00 (15 minutes)

DarkSide-20k is a 20 tonne fiducial mass liquid argon TPC that will perform an instrumental background-free search for WIMP dark matter. The TPC will be outfitted with more than 125,000 silicon photomultipliers (SiPM) grouped into 5210 single-channel, 25 cm² photosensors that are sensitive to single photoelectrons. We will present the performance of the photosensor and associated low-noise electronics at liquid argon temperature and discuss the strategy for scaling up production for DarkSide-20k.

Presenter: Dr RAZETO, Alessandro (LNGS, INFN, Italy)

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