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## **QUPID readout system and operation in Noble Liquid**

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Dark Matter direct detection requires extremely low background environment. Achieving the lowest possible contamination from the photodetectors is one of the most relevant challenge for such a background free measurements. For this purpose UCLA in collaboration with Hamamatsu Photonics has invented a novel photodetector concept called QUPID (Quartz Photon Intensifying Detector), based on the Hybrid APD and entirely made of radiopure quartz.

Next generation of DM detectors - as DarkSide50, XENON1T, MAX and XAX - could widely benefit by employing the QUPIDs, pushing down the background contamination - by at least one order of magnitude than standard PhotoMultiplier - and making possible a dramatic increase in the sensitivity.

We present the QUPID system for Noble Gas in development by UCLA with other collaborations, as FNAL, UZH and Columbia. The electronics and the readout (from the HV/LV to the Preamplifier and its DAQ) play a fundamental role in the design of Noble Liquid detector and must fulfill the low contamination requirement while keeping at the same time the clearness of the low signals coming from the photodetectors. Particularly at UCLA we are building a 7+7 QUPID setup to be operated in Noble Gas/Liquid and we show the ongoing activities and the steps achieved.

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