ArCLight: Development of a novel light detector for modular liquid Argon detectors

ArCLight is a compact dielectric light trap with a large sensitive area, coated with a thin layer of TPB, and read out by Silicon Photo Multipliers (SiPMs). The ArCLights were developed at the University of Bern, with the goal of having fast timing and good spacial resolution. These requirements are particularly driven by the demands for an efficient tagging of fast neutrons produced in neutrino interactions in liquid Argon environment.

In this poster the design features, production method, characterization studies and the photon detection efficiency of the ArCLight modules in liquid Argon, are presented.

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