

Advanced Processing of SiPM Timing Resolution

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Standards analog technique in experimental physics doesn't allow to achieve very high timing resolutions of the detectors based on SiPMs and fast scintillators. One of the reasonable method to obtain that more precisely is usage the digital processing algorithms.

We measured single photon timing resolution (SPTR) of a series of timing optimized KETEK SiPM samples of 3x3 mm² and coincidence timing resolution (CTR) of long and short LYSO crystals with same photodetectors. The results of usage the offline digital processing algorithm on this data will be presented.

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