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## Digital oscilloscope-based acquisition for fast and dynamic sampling of photodetector signals

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A digital oscilloscope can trigger with a mV threshold, digitalize analog signals with 500Mhz sampling in a dynamic timing window, and acquire several channels in a fraction of a second. These characteristics provide oscilloscope a distinct advantage when working with small or medium-sized setups that require photosensor signals to be acquired lightning fast. We created a system to study cosmic muon decays using SiPM and plastic scintillators, as well as another using optical fibers and PMT to monitor proton beam loss at the J-PARC neutrino beamline. We will discuss our experiences with these developments.

### Minioral

Yes

### IEEE Member

No

### Are you a student?

Yes

**Author:** CAO, Son (IFIRSE/KEK)

**Co-author:** TRUONG, Sang (IFIRSE/KEK)

**Presenter:** CAO, Son (IFIRSE/KEK)

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