

## WaveCatcher and SAMPIC International Workshop



ID de Contribution: 13

Type: Non spécifié

### Experience form the HGTD timing application on laboratory and test beam environmen

*mercredi 7 février 2018 15:35 (25 minutes)*

Using a 16 channel 8Gs/s Sampic board, a study of the achieved time resolution limit is performed for a reference Low Gain Avalanche Diode Setup. Using constant fraction linear extrapolation, a 42 psec time resolution is achieved for a pair of identical sensors and without any single fitting technics. Calibration and trigger corrections are applied while comparison with a 20Gs/s oscilloscope setup is performed as an indication of sampling rate limitations. An off-line triggering and coincidence algorithm is used for multi0channel coincidences. The case of a test beam implementation of the device is also studied.

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**Classification de Session:** Session 3