Contribution ID: **20**   Type: **Poster presentation**

Readout System for a Prototype n/γ Detector Based on NaIL Scintillator

A real-time n/γ detection prototype system using NaIL scintillator is presented in this paper. The use of Silicon photomultipliers (SiPMs) array enables low-power and compact-geometry applications. A high-speed waveform sampling board based on analog-to-digital converter (ADC) is employed, and a discrimination algorithm is implemented in the FPGA of the sampling board. Gamma detection test using 22Na, 137Cs, and 60Co shows that NaIL has same gamma performance with standard NaI:Tl. Differences between the gamma and neutron signal are showed using pulse shape discrimination algorithm with an americium/beryllium (AmBe) source.

Minioral

No

IEEE Member

No

Are you a student?

Yes

Authors: ZHOU, fan; FENG, Changqing (University and Science and Technology of China); CAO, Zhe; LIU, Shubin (University of Science and Technology of China); Mr QIN, lei (university of science and technology of China)

Presenter: ZHOU, fan

Session Classification: Poster Session - C

Track Classification: Real Time System Architectures and Intelligent Signal Processing