Contribution ID: **32** Type: **Poster**

SiPM-based beta detectors at ISOLDE

Friday 27 November 2020 11:35 (5 minutes)

The Silicon Photomultipliers (SiPMs) are among the most recent solid-state developments in radiation detection. Having the timing performance close to classical Photomultiplier Tubes (PMTs), superior mechanical robustness, reduced dimension and weight, immunity to magnetic field and operating at low voltages, with a cost slightly higher than a classical PMTs, they often replace classical PMTs whenever there is an advantage in doing so. IFIN-HH is developing SiPM detectors for both γ and β radiation, using scintillators such as LaBr3(Ce) and plastic scintillators respectively. As part of the collaboration between ISOLDE and IFIN-HH, we developed a miniaturized plastic scintillator readout for the ISOLDE Tape Station, offering a compact, robust and versatile β detector. Furthermore, a recent development for the ISOLDE Decay Station is represented by a set of plastic scintillating pads read via SiPMs acting as VETO detectors that will discriminate the background events originating from high-energy β particles depositing their energy into the HPGe crystals.

Authors: NEACSU, Catalin (IFIN-HH); MIHAI, Constantin (H); Mr PASCOVICI, George (IFIN-HH)

Presenter: NEACSU, Catalin (IFIN-HH)

Session Classification: Posters Presentations