

Improving the Time Resolution in Cherenkov TOF PET with SiPMs

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Silicon photomultipliers (SiPMs) were examined as photodetectors in Cherenkov time-of-flight positron emission tomography (TOF PET). The time-of-flight resolution and the detection efficiency of several devices by different manufacturers were measured in TOF PET setup. Effects which degrade the time resolution and the methods to correct them were studied in more detail with a picosecond laser setup.

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