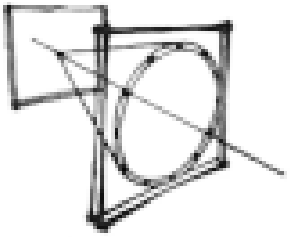

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Ultrafast Detection in Particle Physics and Positron Emission Tomography Using SiPMs

Monday, 5 September 2016 17:25 (15 minutes)

Silicon photomultiplier (SiPM) photodetectors perform well in many particle and medical physics applications, especially where good efficiency, insensitivity to magnetic field and precise timing are required. Recent developments in available devices and research which improved the understanding of SiPM response enable further improvement in the time resolution that can be achieved. We report on our recent research related to the use of SiPMs for very fast detection of Cherenkov photons in aerogel ring imaging Cherenkov counter (ARICH) and time-of-flight positron emission tomography (TOF PET).

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