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## Coincidence Measurements using the SensL MatrixSM-9 Silicon-photomultiplier Array

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The silicon photomultiplier (SiPM) has emerged as a rival device to traditional photodetectors such as the photomultiplier tube (PMT). Over the past decade, SiPMs - also known as Multi-pixel photon counters (MPPCs) and Single-photon avalanche diodes (SPADs) - have found applications in fields ranging from, for example, high-energy physics and atmospheric lidar, to homeland security, biophotonics and nuclear medicine. Due to their wide-ranging applications, arrays of SiPMs are now available commercially as part of modular, turnkey readout systems. One such device - the MatrixSM-9 manufactured by SensL - has been designed specifically for use in high-resolution medical imaging systems required in, for example, state-of-the-art PET applications. We present preliminary coincidence measurements using the Matrix SM-9 system, coupled to a plastic scintillator, to image a  $^{22}\text{Na}$  positron source.

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