

Abstract Submitted  
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**High Resolution Optical Scans of Pixelated Silicon Avalanche Photodiodes**<sup>1</sup> WILLIAM JOHNSTON, ROBERT WILSON, Colorado State University — Pixelated avalanche photodiodes are increasingly used in applications where photomultiplier tubes have previously been employed. These pixelated avalanche photodiodes have 100's of pixels which each act as a single-photon detector. A high-resolution optical scanner has been constructed that can measure the uniformity of response of different pixels, the uniformity of response across individual pixels, and crosstalk between pixels on a single device. This scanner features a micron-sized photon beam and is able to position the photodiode with micron level precision. Initial measurements performed on a Hamamatsu multi-pixel photon counter (MPPC) will be presented.

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