



SYSTEMS, METHODS, AND MEDIA FOR MOTION ADAPTIVE IMAGING USING SINGLE-PHOTON IMAGE SENSOR DATA

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The Invention

UW-Madison researchers have developed a method that dynamically changes exposure times on a per pixel basis in response to changes in the scene. The method relies on taking a series of images, then (on chip or in post processing) applying statistical changepoint detection to estimate times that pixels have changed value, indicating motion or a change in lighting. Between detected changepoints the images can be averaged to create a sharp image that can be used to find scene motion, or motion can be directly inferred from the changepoints. This technique particularly is helpful in low illumination or high-speed situations where it is important to have as long an exposure time as possible without blurring.

Additional Information

For More Information About the Inventors

- [Andreas Velten](#)

Tech Fields

- [Information Technology : Image processing](#)

For current licensing status, please contact Michael Carey at mcarey@warf.org or 608-960-9867