



SYSTEMS, METHODS, AND MEDIA FOR SINGLE-PHOTON IMAGING WITH IMPROVED ENERGY EFFICIENCY

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The Invention

UW-Madison researchers and collaborators have created a computational imaging framework called photon inhibition to make single-photon cameras (SPCs) energy efficient. Photon inhibition strategically allocates detections in space and time based on vision task goals and resource constraints. There are lightweight, on-sensor computational inhibition policies that use past photon data to disable SPAD pixels in real-time, to select the most informative future photons. On real-world videos captured by an SPC, inhibition policies adapt to light levels to maintain task performance while inhibiting over 90% of photons.

Additional Information

For More Information About the Inventors

- [Mohit Gupta](#)

Tech Fields

- [Information Technology : Computing methods, software & machine learning](#)
- [Information Technology : Image processing](#)

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