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## **Radiation-Hardened and Radiation-Sensitive Single-Photon Imagers**

*Tuesday, 5 July 2011 08:30 (35 minutes)*

Thanks to recent advances in the field of solid-state photon counters and single-photon imagers, there has been an increasing interest in studying the effects of long- and short-term radiation onto these detectors.

In this talk we describe CMOS image sensors capable of detecting single-photon radiation at visible, ultraviolet, and near infrared wavelengths in hostile environments, such as high B-fields and intense gamma ray exposure. We focus on the architectures and the techniques that make these devices possible as well as their limitations and their applicability in disparate fields, such as high energy physics, biology, medicine, and entertainment.

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**Session Classification:** Front-end Electronics and Readout I

**Track Classification:** Front-end Electronics and Readout