## TWEPP 2016 - Topical Workshop on Electronics for Particle Physics



Contribution ID: 177 Type: Oral

## CMOS Image Sensors in Harsh Radiation Environments

Wednesday 28 September 2016 09:00 (45 minutes)

CMOS Image Sensors (CIS) have become the main solid state image sensor technology for visible imaging applications. Despite the higher radiation hardness of CIS compared to its CCD counterpart, there are still demanding applications where CMOS imager performances can be significantly reduced by high energy particles. This is the case for the most severe radiation environments where imaging capabilities are required: particle physics, nuclear fusion, nuclear power plants…

After a brief overview of the CIS technology and the review of basic degradation mechanisms in harsh radiation environments, mitigation techniques will be discussed and recent developments will be used as illustrative examples.

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Session Classification: Invited Talk