



SiPM workshop: from fundamental research to industrial applications

2-4 October 2019
Università di Bari
Europe/Rome timezone

CAEN Award & Concluding remarks

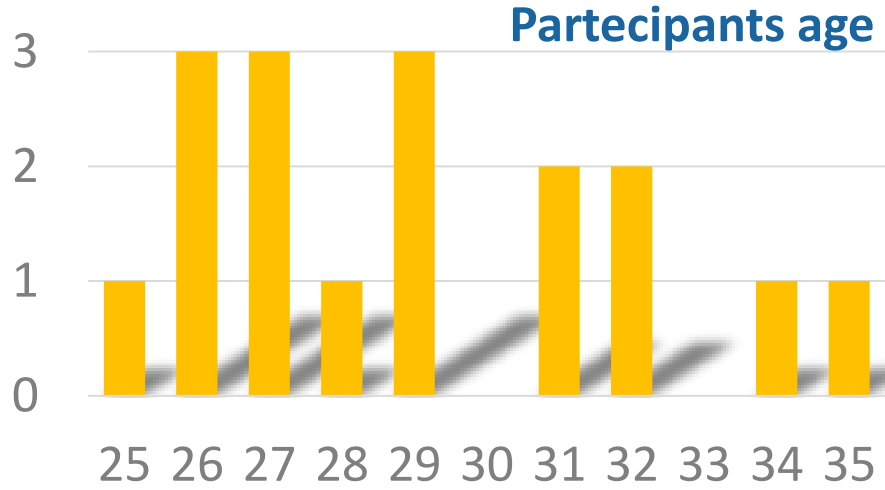
Francesco & Elisabetta



SiPM workshop: from fundamental research to industrial applications

CAEN Young Researcher Award

- Participants: 17
- Criteria:
 - Clarity in slides and exposition
 - Presentation layout and style
 - Research quality
 - Personality and motivation
 - Age





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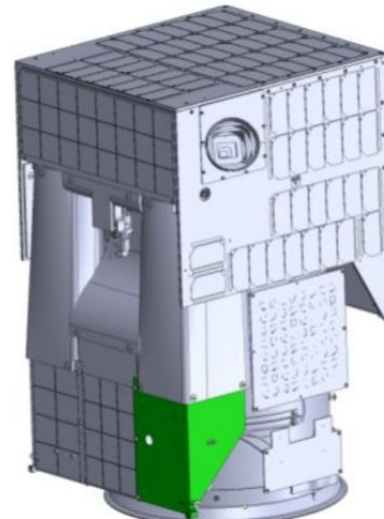
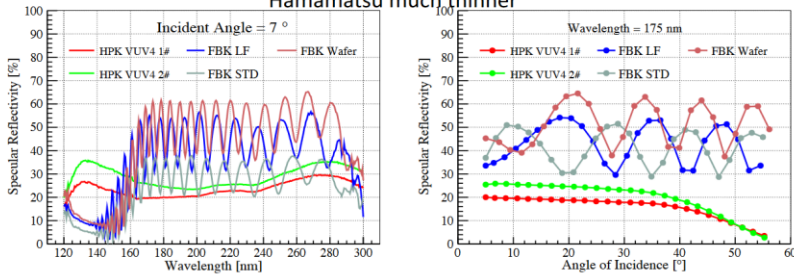
CAEN Young Researcher Award

- Participants: 17
- Criteria:
 - Clarity in slides and exposition
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- Winner: **Samuela Lomazzi**
 - *“A SiPM based novel approach to cytosolic calcium detection by bioluminescence”*

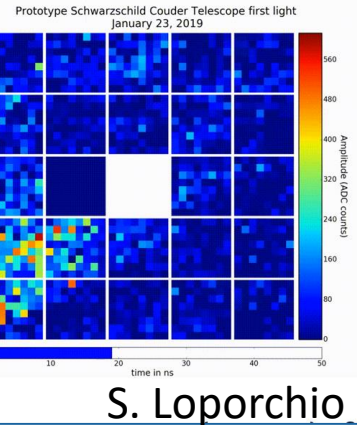
Measuring reflections in vacuum

F. Retiere

Measurement at IHEP and IOE (China)
1-1.5 μm of SiO2 on top of FBK SiPM
Hamamatsu much thinner



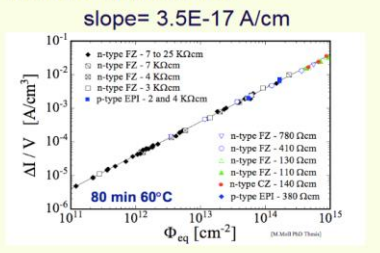
F. Izraelevitch



S. Loporchio

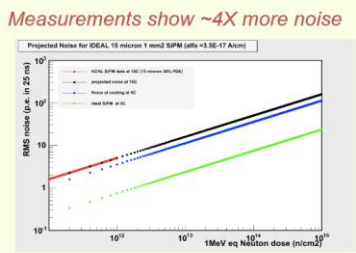
DCR or Noise increase in SiPMs due to rad

Leakage current increase in Si-PIN diodes for 1 MeV equivalent dose



We expect the dark count rate:
Dark Count = $1/q \cdot V \cdot \Phi \cdot \text{slope} \cdot G.F. \cdot P_{V0}$
 $V = \text{cell size} \cdot d_{\text{dpi}}$ (few microns in case of SiPM)

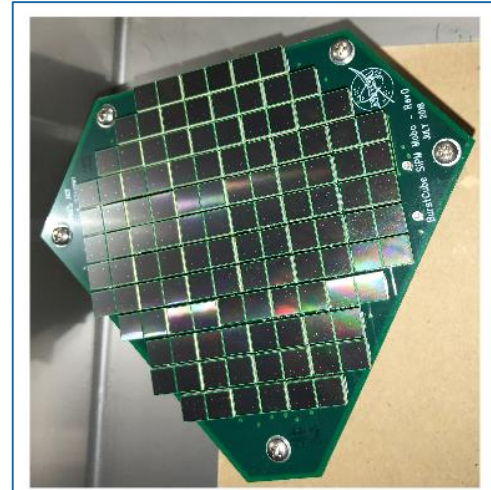
A. Heering



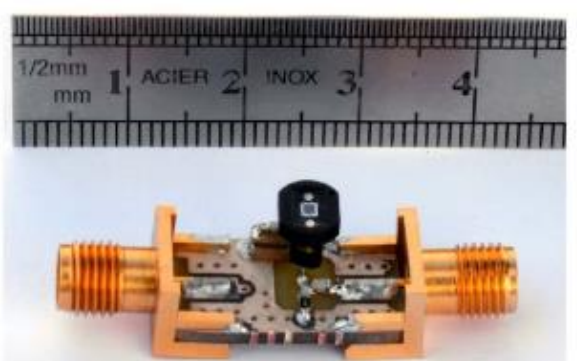
The dark noise generation rate in APDs/SiPMs is dominated by high electric field effects mainly by tunneling via radiation-induced defects or traps in Si



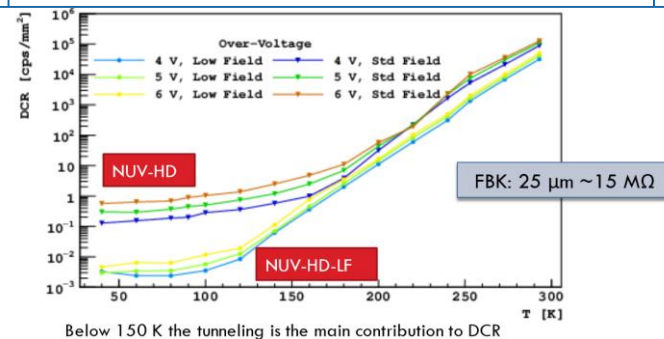
M. Caccia



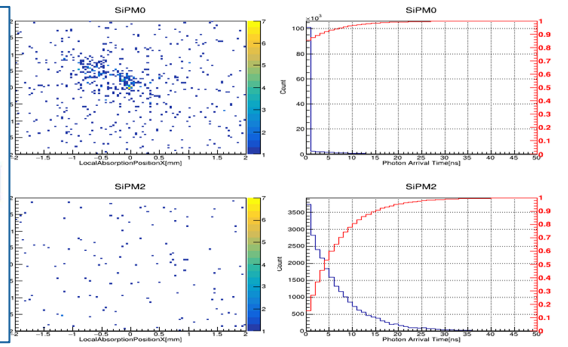
J. Smith



A. Dalla Mora



A. Razeto



D. Serini



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Proceedings

- Journal: *Nuclear Instruments and Methods A*
 - Special issue title: *SiPM Workshop: from fundamental research to industrial applications (SiPM Workshop Bari 2019)*
- Submission open: **October 10, 2019**
- Submission deadline: **November 22, 2019**
- More info will be posted here:
<https://agenda.infn.it/event/17801/page/4867-proceedings>



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Next «SiPM workshop» editions?

- During this workshop, we got **many** suggestions to start a **series of SiPM workshops** to take place every 2 years
 - If you want to host the next workshop, please let the SOC know and nominate your city/institution asap!



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GRAZIE A TUTTI

