

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

CAEN Award & Concluding remarks

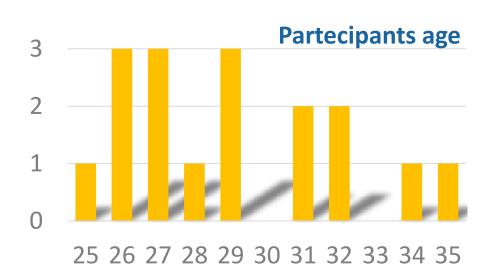
Francesco & Elisabetta





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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 - Age
- Winner: Samuela Lomazzi
 - "A SiPM based novel approach to cytosolic calcium detection by bioluminescence"





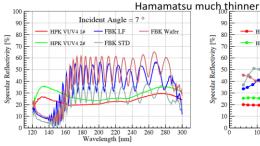
Thank you for a very productive workshop!

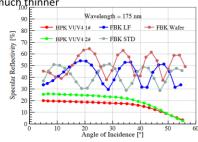
- Wide participation, greater than what we expected!
 - Community is very active and likes to meet/discuss/interact/exchange ideas
 - Thanks to all chairs and speakers for always beeing on time!
 - Hope you enjoyed coffee breaks, lunches and social events!
- This was a first attempt to bring together very different fields of application, trying to connect a broader community of SiPM users and developers!

Measuring reflections in vacuum

F. Retiere

Measurement at IHEP and IOE (China) 1-1.5 um of SiO2 on top of FBK SiPM

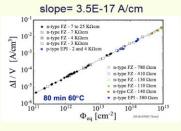






Prototype Schwarzschild Couder Telescope first light S. Loporchio

DCR or Noise increase in SiPMs due to rad A. Heering Leakage current increase in Si-PIN diodes for 1 MeV equivalent dose



Dark Count = 1/q * V * Φ * slope * G.F. * P(V)

V= cell size * depi (few microns in case of SiPM)

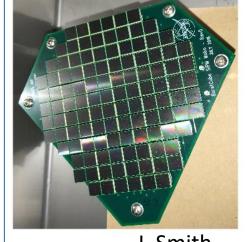
We expect the dark count rate:

1MeV eq Neuton dose (n/cm2)

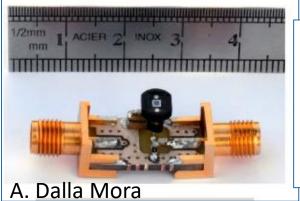
Measurements show ~4X more noise

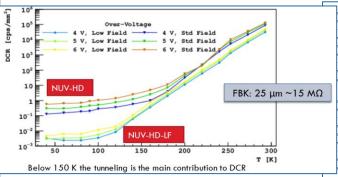
The dark noise generation rate in APDs/ SiPMs is dominated by high electric field effects mainly by tunneling via radiationinduced defects or traps in Si



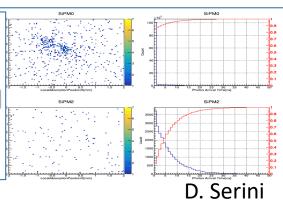


J. Smith





A. Razeto







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



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!







