



NEWS



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UNIVERSITÀ DI PISA



SAPIENZA
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Knowledge Transfer WP10 Clever Operation Update

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WP10: Knowledge Transfer

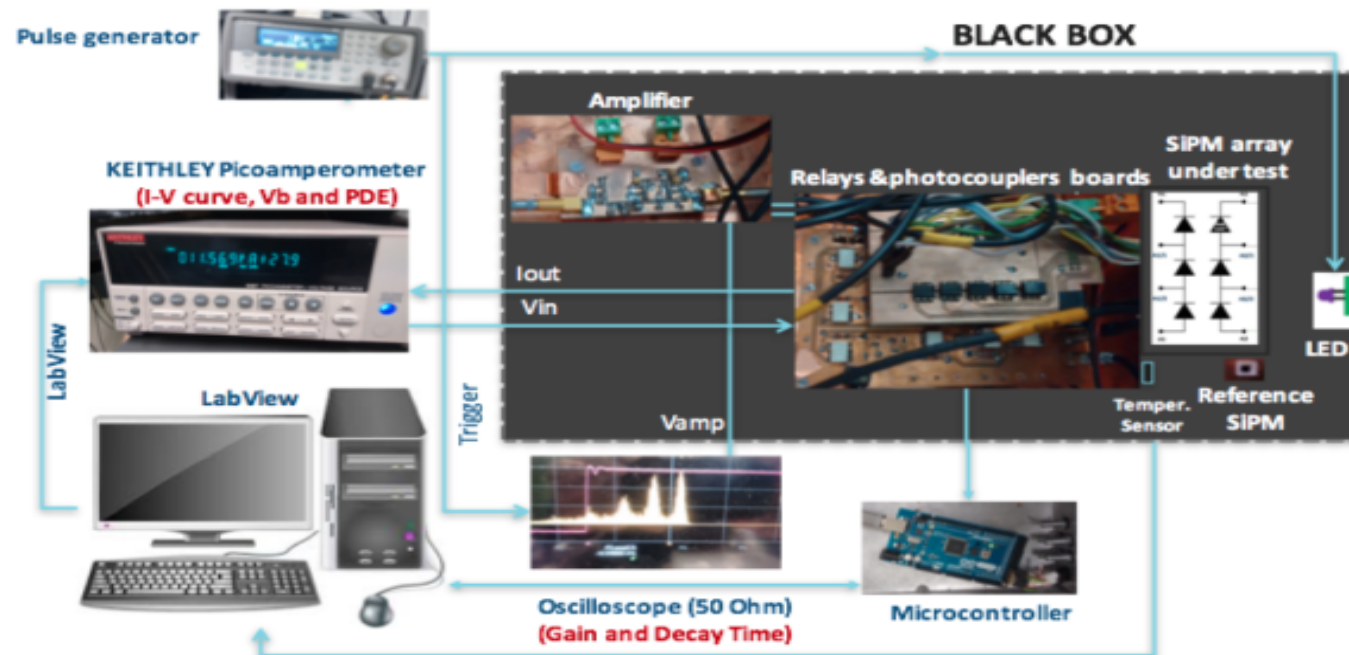
- Secondment of a researcher (MENAA Nabil) from Clever Operation to INFN and Pisa University
 - INFN: from 28/03/2018 to 29/04/2018
 - Univ Pisa: from 30/04/2018 to 31/05/2018
- IXPE and Mu2e
- Special thanks to:
 - Simone Donati, Fraco Spinella, Luca Morescalchi, Elena Pedreschi, and Davide Caiulo,
 - Carmello Sgro, Luca Baldini, and Luca Lantronico,
 - All others for the support and warm welcome.

Mu2e: Part1

- Introduction to the experiment and more specifically the calorimeter SiPM and CsI detectors and readout electronics
- had various discussions with INFN and Mu2e scientists and researchers and participated to various research and networking Skype meetings with Mu2E collaborators with INFN-PISA, Fermilab and INFN-Frascati
- developed an optimized the DAQ of the semi-automatized test station in order to measure: gain, operational voltage, I_{dark} and PDE of each cell of the Mu2e SiPMs in order to provide information about the homogeneity of the SiPM response.

Mu2e: Part 2

- The objective of the DAQ optimization is to reduce the data acquisition execution time from 16 hours to 12 hours



IXPE

- had various introduction meetings on IXPE mission and the detector part in particular,
- I was asked to start learning about the systems while putting a focus on the FMECA (Failure Mode, Effects, and Criticality Analysis)
 - It was a nice start to learn about the requirements and constraints in spcase development

Current and Future Plans

- A second researcher (Radia SIA) from Clever joined the INFN-Pisa group to be seconded for the summer since June 3rd 2018.
- The two researchers from Clever continue the work on knowledge transfer and support the Mu2e calorimeter development efforts:
 - Single channel readout electronics and associated FPGA firmware development
 - Scale up to 20 channels