



Contribution ID: 163

Type: **not specified**

A powerful new technology platform to address new R&D strategies in timing sensor technologies: When silicon technology meets ultrafast lasers at ELI.

Wednesday 17 March 2021 10:30 (15 minutes)

We developed an interdisciplinary fs-laser-based unique technology platform to test and explore new frontiers in light and optics to build up new knowledge that could advance existing strategies for further silicon technology development, emphasizing LGAD timing sensors. In collaboration with ELI Beamlines facility and ELI BioLab, the advanced fs-laser-based TCT/SPA-TPA infrastructure will extend our ability to see the structures and signatures of LGAD fatalities in test beams and to pave the path towards mitigation of the underlying mechanisms causing these fatalities. Furthermore, it will also help define the upper limits for critical bias working conditions at extreme fluences (LHC-HL, FCC) and lower fluences (ILC, CLIC). Here we present an overview of the project aiming to set new testing strategies supporting further LGAD development.

Time Zone

Europe/Africa/Middle East

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Session Classification: PD5: Tracking Detectors

Track Classification: Physics and Detectors Tracks: PD5: Tracking Detectors