

# Fast timing detectors with applications in cosmic ray physics and medical science

*Thursday 18 July 2024 15:30 (15 minutes)*

We discuss the use of Low Gain Avalanche (LGAD) silicon detectors for two specific applications, namely measuring cosmic rays in space in collaboration with NASA and beam properties and doses for patients undergoing cancer treatment in flash beam therapy. For the first time, the use of LGADs and fast sampling electronics will be used in space in order to identify the type of particles in cosmic rays and measure their energies. Similar techniques allow to measure instantaneously with high precision the doses received by patients in flash beam therapy.

## Alternate track

1. Technology Applications and Industrial Opportunities

## I read the instructions above

Yes

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