

Advances in Silicon Detectors

Wednesday 2 April 2025 13:45 (30 minutes)

Silicon detectors play a crucial role in modern particle physics experiments, highly performing in demanding environments. Many planned experiments put ever higher requirements on these detectors in terms of radiation dose, hit, data and trigger rates, timing, radiation length and more.

In my presentation I will talk about recent advances in the design of silicon detectors and detail how these advances enable upcoming experiments to meet these requirements. I will cover developments for hybrid and monolithic silicon tracking detectors and silicon calorimeters. I will highlight novel features that have been successfully implemented already, as well as the path ahead towards the realisation of some of the most challenging experiments yet.

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Session Classification: Invited Overview Talks / Hauptvorträge