

Test beam results from CMS strip sensor upgrade studies

Wednesday 5 June 2013 09:20 (20 minutes)

There are a number of plausible candidates for sensor types in the outer regions of HL-LHC trackers, where issues of cost and ease of construction must also be taken into consideration given the very large number of sensors that are required. Over the last couple of years, the CMS experiment has undertaken 4 beam tests to probe the radiation hardness of prototype strip sensors procured from a single vendor and using a single mask design. The sensor types include both Float Zone and Magnetic Czochralski fabrication processes, n- and p-type bulk properties, and a number of variations in strip parameters. The beam test results, which will be reviewed in this presentation, are part of a wider effort on the part of the CMS Sensor Upgrade group to identify a preferred candidate for the HL-LHC upgrade of the CMS strip tracker.

Primary author: SPIEGEL, Leonard (FNAL)

Presenter: SPIEGEL, Lenny (Fermi National Accelerator Lab. (US))

Session Classification: Session 5: Detectors and Full Detector Systems