

Silicon Strip Detectors for ATLAS at the HL-LHC Upgrade

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While the Large Hadron Collider (LHC) at CERN continues to deliver increasing amounts of luminosity to the experiments, a phased upgrade of the LHC is planned, ultimately aimed at a luminosity of ten times the LHC design luminosity (HL-LHC). To cope with the expected harsh operating conditions in terms of particle rates and radiation dose, the ATLAS collaboration is developing a new tracker. In our presentation, we give an overview of the ATLAS tracker upgrade project, focusing on the silicon strip layers. We discuss technology choices for the sensors and present mechanical and electronic aspects of proposed module designs.

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