

# Charge Trapping in the Simulation of ATLAS Semi-Conductor Tracker

*Wednesday 14 November 2012 10:00 (20 minutes)*

One of the main, macroscopic radiation damage effects in silicon detectors is the charge trapping. It occurs when in the bulk of silicon sensors, exposed to intensive irradiation, defects acting as charge traps are induced. As a consequence, the charge collection efficiency of the detector is strongly affected.

The charge-trapping effect has been implemented in the simulation framework of the ATLAS Semi-Conductor Tracker.

The talk will present the general scheme used for this, together with some preliminary results regarding the detector response as a function of the fluence received.

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**Session Classification:** Radiation Damage in LHC detectors