Contribution ID: 38 Type: 20 min

Simulations of edge-TCT and 2-defect model CCE

Tuesday 4 June 2013 09:40 (20 minutes)

Edge-TCT provides a method for the measurement of the drift velocity of the charge carriers as a function of depth. This could make it possible to extract electric field distribution in the detector.

Comparison of edge-TCT simulations with measurements will be presented.

Interstrip resistance can be measured by Induced Current Method, where DC voltage is applied to one strip and the current flowing to another strip is measured. Simulations using this method will be presented.

Interstrip resistance behaviour as a function of oxide charge and different p-stop parameters will be studied and comparison between simulation packages will be made.

The simulation of charge collection efficiency (CCE) of proton-irradiated detectors has been studied. For the simulations an effective 2-defect model based on the EVL model was used. Results from the simulations and measurements from the Silicon Beam Telescope (SiBT) will be compared.

Author: PELTOLA, Timo Hannu Tapani (Helsinki Institute of Physics (FI))

Co-author: HAERKOENEN, Jasu (Helsinki Institute of Physics (FI))

Presenter: PELTOLA, Timo Hannu Tapani (Helsinki Institute of Physics (FI))

Session Classification: Session 3: