



Contribution ID: 14

Type: **not specified**

Extraction of electric field of non-irradiated microstrip detectors using the edge-TCT technique

Friday, July 5, 2013 3:50 PM (25 minutes)

Edge-TCT (where TCT stands for Transient Current Technique) is a new experimental method for segmented detectors where a focused laser beam is injected from the side of the device. Using a beam much smaller than the thickness of the device under study, the drift of the induced charge carriers can be studied as a function of the injection position. Intrinsic properties of the devices can be profiled along this coordinate, namely the charge collection efficiency and drift velocity. We show in this contribution a new method to extract the electric field from the measured drift velocity profiles. We have applied this method to microstrip detectors of both N and P-bulk type, produced by 3 different manufacturers: Micron, VTT-Helsinki and Hamamatsu.

Primary author: Dr FERNANDEZ GARCIA, Marcos (IFCA-Santander)

Co-authors: Dr GALLRAPP, Christian (CERN); Mr NEUGEBAUER, Hannes (CERN); Dr VILA ALVAREZ, Ivan (IFCA-CSIC); Dr GABRYSCH, Markus (Uppsala University); Dr MOLL, Michael (CERN)

Presenter: Dr FERNANDEZ GARCIA, Marcos (IFCA-Santander)