Contribution ID: **28** Type: **POSTER**

Modeling and simulation of spiral Si Drift Detecter

Saturday 26 September 2015 19:02 (1 minute)

A spiral Si Drift Detector structure is simulated using a 3D TCAD tool. Electrical characteristics including electrostatic potential, electric field, leakage current, and capacitance have been simulated in detail. It has been found in simulations that both leakage current and the voltage to reach the geometry capacitance (full depletion voltage, Vfd) increase with radiation fluence. In addition, the simulation of Single Event Effects (SEE) are also important. High energy proton, neutron, alpha particle can cause Single Event Effects in semiconductor device used in aircraft electronic system, which affects the reliability and lifetime of an aircraft. The 3D device numerical simulation of Single Event Effect is performed using DESSIS.

Primary author: XIAO, Ren (Xiangtan University)

Co-author: Prof. LI, Zheng (Xiangtan University)

Presenter: XIAO, Ren (Xiangtan University)

Session Classification: After dinner POSTER session, with drinks: (All presenters are requested/encouraged to attend their posters; All participants are requested to participate the session, with drinks!)

Track Classification: Simulations and Manufacturing