

Session I: Ground Level Effects

Chair: W. Magnes and F. Wrobel

- I-1 Alpha-Particle Induced Soft-Error Rate in CMOS 130nm SRAM.**
Sebastien Martinie, Jean-Luc Autran, Daniela Munteanu, Sebastien Sauze : IM2NP-CNRS
Slawosz Uznanski, Philippe Roche, Gilles Gasiot : STMicroelectronics
Pia Loaiza, Guillaume Warot, Michel Zampaolo : LSM CEA-CNRS
- We report the simulation of the alpha-SER in 130nm SRAM due to uranium contamination at ppb concentration levels. Monte-Carlo simulations are confronted to experimental data obtained from more than two years real-time underground measurements.*
- I-2 Alpha-Particle and Focused-Ion-Beam-Induced Single-Event Transient Measurements in a Bulk CMOS 65-nm Technology.**
Matthew Gadlage : NAVSEA Crane
Jonathan Ahlbin, Bharat Bhuva, Nicholas Hooten, Nathaniel Dodds, Robert Reed, Lloyd Massengill, Ronald Schrimpf : Vanderbilt University
Gyorgy Vizkelethy : Sandia National Labs
- Pulse widths of single-event transients produced by alpha particles are measured. The results show that alpha particles are able to induce transient signals with a width of 25 ps in a 65-nm bulk technology.*
- I-3 Uranium and Thorium Contributions to Soft Error Rate.**
Michael Gedion, Frederic Wrobel , Frederic Saigne : IES
Ronald D. Schrimpf : Vanderbilt university
- Uranium and thorium decay chains contribution to alpha particle-induced SER is evaluated on a 65 nm technology node by performing Monte Carlo simulations.*

Posters for Session I

PI-1 Research of Radiation Effects in Aviation Altitudes During the Last Solar Cycle.
Marcin Latocha, Peter Beck : AIT

Cosmic radiation was discovered in the beginning of the XX century. This paper presents an overview of important findings on radiation effect in aviation altitudes during the last solar cycle.