Monday, May 13, 2024

Time (PST)	Title
5:00 to 8:00 PM	Registration and Welcome Reception

Tuesday, May 14, 2024

Time (PST)	Session	Title	Speaker	Organization
8:10 AM	Intro	Workshop Opening Remarks	Adrian Ildefonso	US Naval Research Laboratory
8:20 AM		SEE Technical Program Introduction	Krysten Pfau	Lockheed Martin
8:30 AM	Environments and Facilities	**Session Intro**	Athina Varotsou	TRAD
8:40 AM		Understanding High Energy SEE and Opportunities at Brookhaven National Laboratory	Kevin Brown	Brookhaven National Laboratory
9:00 AM		Status of the K150 Cyclotron Upgrade Project and Radiation Effects User Statistics at Texas A&M University	Henry Clark	Texas A&M University
9:20 AM		Ongoing Developments at the 88-Inch Cyclotron	Janilee Benitez	LBNL
9:40 AM		88-Inch Cyclotron BASE Facility Microbeam Update 2024	Mike Johnson presenting for Alex Donoghue	LBNL
10:00 AM	**Break**			
10:30 AM	Environments and Facilities	The RADHUB Radiation Hardness Assurance Tool Suite	Brian Sierawski	Vanderbilt University
10:50 AM	Tutorial	Development of Space Environmental Effects Digital Laboratory (SEE-D Lab) for the Natural Space Radiation Environment	Kerry Lee	The Aerospace Corporation
11:20 AM		The Proton Radiation Environment in LEO & MEO: an Overview of Variability and Risks	Alex Lozinski	UCLA
11:50 AM	**Lunch**			
1:30 PM	Education and Workforce Development	**Session Intro**	Jeff Teng	Georgia Tech
1:40 PM		LabRaTTS: Laboratory Radiation Test Training Simulator	Brian Sierawski	Vanderbilt University
2:00 PM		NASA Parts Engineering School	Dorothy Gallagher presenting for Seth Gordon	JPL
2:20 PM		Texas A&M University Cyclotron Institute Single Event Effects (SEE) Bootcamp Evolution	Gregory Allen/ Megan Casey	NASA
2:40 PM		Academy for Radiation Effects and Survivability	Justin Likar/ Ken LaBel	JHU/APL
3:00 PM	**Break**			
3:30 PM	Emerging SEE Test Alternatives	**Session Intro**	Bill Rowe	Raytheon Technologies
3:40 PM		Neutron Single Events Effects (nSEE) Testing for Microelectronics Resilience in Strategic Environments	Robert Cooper	Naval Surface Warfare Center - Crane
4:00 PM		Criteria for Predicting Heavy-Ion SEE Response Using Surrogate Testing Approaches	Joel Hales	US Naval Research Laboratory
4:10 PM		Screening SEL susceptibility in COTS devices using pulsed Laser	Jeremy Guillermin	TRAD
4:30 PM		Pulsed Electrons for Alternative Radiation effects Characterization of Electronics (PEARCE): An Update	George Tzintzarov	The Aerospace Corporation
4:50 PM		An Update on Pulsed X-ray SEE Testing Capability Development	Daniele Monahan	The Aerospace Corporation
5:10 PM		CHALICE: Calculator for Highly Accurate Laser-Induced Carrier Excitation	Adrian Ildefonso	US Naval Research Laboratory
5:30 PM	**End Tuesday May 14**			

Wednesday, May 15, 2024				
Time (PST)	**Session**	**Title**	**Speaker**	**Organization**
8:00 AM	Intro	Announcements		
8:10 AM	SEE Testing and Mitigation	**Session Intro**	Lucas Antunes Tambara	Frontgrade Gaisler
8:20 AM		Use of Bragg Search Testing at TAMU K500 Cyclotron for Determining Overmold Density for Unknown Materials on Sunnyside-Up Parts	Keri Kuhn	SEAKR Engineering LLC
8:40 AM		Comparison of Oscillator Single Event Effects Observed for Heavy Ion and Pulsed Laser Testing	George Ott	Radiation Test Solutions
9:00 AM		Impact of Test Equipment on Single-Event Latchup Susceptibility	Omair Ahmad	Nucleon
9:20 AM		Heavy-Ion SET Response of a Wide-Band Operational Amplifier Fabricated in the SkyWater S90LN 90 nm Process	James Carpenter	Indiana University
9:40 AM		Built-in Self-Test Architecture for Characterization of Single Event Effects in Commercially Available Bulk 90nm Technology	Spencer Westfall	Indiana University
10:00 AM	**Break**			
10:30 AM	Invited Talk	Invited Talk: The Winding Path from SME to Policy Advisor - REMOTE	Jonathan Pellish	NASA GSFC
11:10 AM	FPGA SEE Testing	**Session Intro**	Merek Chertkow	The Radiation Team
11:20 AM		SEE rate observations and rate predictions across several generations of AMD-Xilinx FPGAs	Sebastian Sabogal	NASA GSFC
11:40 AM		Multi-bit Upsets in Space FPGAs	David Lee	Sandia National Labs
12:00 PM	**Lunch**			
1:30 PM	FPGA SEE Testing	Tales from the Cave: Beam Lessons Learned	Gary Swift	Swift Engineering & Radiation Services
1:50 PM		Testing Versal 1902 ACAP on XRTC Gen-4 SEE Platform	Gary Swift presenting for Hermann Rufenacht	XRTC
2:10 PM		Single Event Upset Characterization of the Versal AI Core dual-core ARM Cortex A72 Application Processor Unit and Deep Learning Processing Unit Using Proton Irradiation	Nelson Hu	MDA Canada
2:30 PM	SEE Simulation and Data Analysis Techniques	**Session Intro**	Raul Palomares	Lockheed Martin
2:40 PM		A Review of Single Event Upset Rate Calculation Methods	Dave Hansen	L3 Harris
3:00 PM	**Break**			
3:30 PM	SEE Simulation and Data Analysis Techniques	VIRAD: A New Method for Combined-Radiation-Environment Integrated Circuit Analysis	Conrad Jensen	Reliable MicroSystems
3:50 PM		Curve Fitting to Non-Saturating SEE Data	Bill Rowe	Raytheon
4:10 PM		Proposal of a Multi-Scale High Accuracy Engineering approach for Single Event Effects Analysis in Modern Technologies	Jeremy Guillermin	TRAD
4:30 PM	**Break**			
5:30 PM	**Industrial Reception** (5:30 to 8:00 PM)			
8:00 PM	**End Wed May 15**			

Thursday, May 16, 2024				
Time (PST)	**Session**	**Title**	**Speaker**	**Organization**
8:00 AM	SEE Simulation and Data Analysis Techniques	**Session Intro**	Raul Palomares	Lockheed Martin
8:10 AM		Hierarchy of Knowledge: SEL Edition	Ray Ladbury	NASA GSFC
8:30 AM		Systematic Assurance Analysis of Components Radiation Effects on System Performance	Qi Zhang	Vanderbuilt University
8:50 AM	Intro	**Combined/MAPLD Introduction Technical Program Introduction**	Tom Leahy	SiFive
9:00 AM	SEE Case Study	**Session Intro**	Jim Tavacoli	Lattice Semiconductor
9:10 AM		Heavy Ion Induced SEU and MBU Sensitivity of 3D NAND Flash Structures	Jeremy Guillermin	TRAD
9:30 AM		Recent Observations during SEE Testing of Various Memory Products	Helmut Puchner	Infineon Technologies
9:50 AM		Operating System Dependencies on Radiation Reliability in CPU°Memory	Seth Roffe	NASA GSFC
10:10 AM	**Break**			
10:40 AM	SEE Case Study	Novel Protection of Half-Bridges in Space Environments	Alex Billings	Apogee Semiconductor
11:00 AM		An Overview of SEEs in RFIC/MMIC	Jeffrey Teng	Georgia Tech
11:20 AM		Verifying SEFI Requirements for SOCs and Other Complex Devices	Steve Guertin	JPL
11:40 AM		The Use of Block Rolling Offset during TID Testing for Memory°Parts	Keri Kuhn	SEAKR Engineering LLC
12:00 PM	**Lunch**			
1:30 PM	Novel Applications Case Study	**Session Intro**	Steve Guertin	JPL
1:40 PM		SEE and TID Radiation Test Results for Managed Flash Memory Devices	Ian Troxel	Troxel Aerospace Industries
2:00 PM		Update on qualification info on Versal, plans for VE2302	Ken O'Neill	AMD
2:20 PM		Heavy Ion testing results on multi-GB STT-MRAMs	Paul Chopelas	Avalanche Technologies
2:40 PM	Tutorial	Open Standards	Tom Leahy	SiFive
3:10 PM	**Break**			
3:40 PM	Novel Applications Case Study	Revolutionizing UAV Control: Integrating NLP with Advanced FPGA and FPAA Technologies for Dynamic Reconfigurability	Mohamed El-Hadedy	Cal Poly Pomona
4:00 PM		Advanced Node FPGAs for Edge Processing	Jim Tavacoli	Lattice Semiconductor
4:20 PM	**Break**			
5:30 PM	**Poster Session & Career Networking Happy Hour**			
	SEE results of radiation tolerant MOSFETs Oscar Mansilla, Infineon Technologies		What's New in the Domestic Proton Access for SEE (>200 MeV prime) Ken LaBel, SSAI / NASA GSFC	
	Radiation Hardness Assurance of the 3D PLUS Monitoring CAMera (MCAM) system in the frame of MSR-ERO mission Ameur Sellai, 3D PLUS		Radiation Characterization of the COTS MyriadX Edge Vision Processing Unit and Use Case in Space Applications Lucas Tambara, Gaisler	
	Harnessing Machine Learning: Parallel Testing and Real-Time Analysis for Accelerated Radiation Effects Dataset Generation Trevor Peyton, Indiana University		Recently updated MIL-PRF-38535 spec embraces plastic packaging for next generation ICs Kurt Eckles, Texas Instruments	
8:00 PM	**End Thursday May 16**			

Friday, May 17, 2024				
Time (PST)	**Session**	**Title**	**Speaker**	**Organization**
8:00 AM	Design, V&V, and Technical Management of FPGAs/SoCs and PLDs	**Session Intro**	Jeff Wetch	Synopsys
8:10 AM		Versal-based Space Applications (placeholder title)	Thomas Bradshaw	Sandia National Labs
8:30 AM		SDRAM Challenges in Space	Robert Hillman	Power Device Corporation
8:50 AM		MAPLD - Optimize FPGA & SoC Configuration for Speed, Resilience & Adaptability	Paul Chopelas	Avalanche Technologies
9:10 AM		FLASH Memory Challenges in Space	Robert Hillman	Power Device Corporation
9:40 AM		Rad-Hard 16Gb COnfiguration Memory BOot Manager	Pierre-Eric Berthet presenting for Patrice Benard	3D PLUS
10:00 AM	**Break**			
10:30 AM	FPGA & SoC Assurance	**Session Intro**	Yu Kudo	ISPACE
10:40 AM		Synplify Debug Solution for Functional Safety and High Reliability°in FPGAs	De'Andre Doughty Hoskins	Synopsys
11:00 AM		Optimal SEU Mitigation for FPGA Based Hardware Acceleration of C/C++ Applications	Kamesh Ramani	Siemens EDA
11:20 AM		Next Step in Low Power Space Processing	David Matthes	BAE
11:40 AM	Closing Remarks			
12:00 PM	**End Friday May 17**			