Abstracts are being accepted for the 8th Military and Aerospace Programmable Logic Devices (MAPLD) International Conference. Programmable devices, technologies, and related aspects of digital engineering will comprise the major emphasis of this conference.

This year, there will be a special emphasis on papers with the following themes:

- "War Stories" and Lessons Learned
- High integrity systems design considerations.
- Design verification methods.
- Reliability and fault tolerance with FPGAs
- Logic design guidelines.
- Digital Device Obsolescence Issues
- Implementing high performance, high reliability processor cores in FPGAs.
- Do's and Don'ts for SEU mitigation and immunity; how to analyze and evaluate a design for SEU immunity or susceptibility.
- General-purpose, high-performance, PLD-based computing systems and applications.
- Micro air vehicle/unmanned air vehicle controllers
- Reconfigurable Computing applications such as MIL-STD interfaces, munitions controllers, and computational fluid dynamics analysis.
- Software tools that check for low reliability design constructs.
- PLD tools/methods that we need but vendors don't supply.

### Important: Technology Transfer Considerations, Copyright, and Proprietary Information

Prospective authors are reminded that technology transfer guidelines and policies can considerably extend the time required for review of abstracts, presentations, and completed papers. Proper Government reviews, ownership of copyright, and the absence of proprietary information is solely the responsibility of the author. The organizing committee and their employing organizations will assume that all abstracts, presentations, and papers are appropriately cleared for unrestricted distribution to an international audience. All work submitted to MAPLD will be free of any copyright restrictions and marks and will be placed into the public domain for unlimited distribution and use.

Technical Program

The Technical Program will consist of oral presentations, a poster session, and an enhanced series of "Birds of a Feather" workshops. We are planning an exciting program with several special invited speakers for our Invited History Talk, Panel Session after the dinner banquet, and new for 2005, the Invited Mishap Talk. This conference is open to US and foreign participation and is unclassified. Authors can submit their papers by visiting http://klabs.org/mapld05.

MAPLD topics also include (but are not limited to) the following:

- Analysis Techniques
- CPUs
- Logic Design
- Low-Power Techniques
- High-Speed Techniques
- Military Applications
- Encryption Systems
- Device Architecture
- Systems and Software
- Intellectual Property
- Fault Tolerance
- Use of COTS Devices
- Advanced Packaging
- Evolvable Hardware
- Arithmetic and Signal Processing
- System-on-Chip Translation from High Level Languages
- Radiation Effects, Device Reliability and Element Characteristics
- Launch Vehicle and Spaceborne Applications
- Devices and Programmable Elements
- Critical Systems and Reliability
- Testing and Analysis Techniques
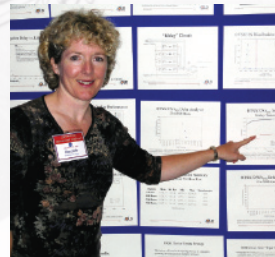
Oral Sessions, Birds of a Feather Workshops, and Special Sessions

- Applications: Military & Aerospace
- Logic Design and Processors
- Verification of High Reliability Designs
- Radiation Effects and Mitigation Techniques
- Reconfigurable Computing, Evolvable Hardware, and Security
- Poster Session
- BOF-L: Mitigation Methods for Reprogrammable Logic in the Space Radiation Environment
- BOF-F: Reconfigurable Computing
- BOF-J: PLD Failures, Analyses, and the Impact on Systems
- BOF-S: NESC and Software
- Joint Workshop with the NASA Engineering and Safety Center
- BOF-G: Digital Engineering and Computer Design - A Retrospective and Lessons Learned for Today's Engineers

Seminars

- Signal Integrity, Power Integrity, and Interfacing
- Real-Time, Hi-Rel Software Issues for Computer Designers
- Device Failure Modes and Reliability
- Reconfigurable High-Performance Computing

Abstract Submittal Information

Abstracts should be approximately 1/2 page long and include a brief introduction along with the key points that the paper will make.

Abstracts are due April 25, 2005. Late abstracts will be accepted for the Poster Session only. Acceptance letters will be sent May 16, 2005.

Industrial and Government Exhibits

Industrial exhibit reservations should be sent to mapld2005@klabs.org and should include company name and contact information (phone and e-mail). Please see http://klabs.org/mapld05 for additional information.

Contact Information

For additional conference information, please visit klabs.org/mapld05

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The 8th MAPLD International Conference is hosted by the NASA Office of Logic Design; sponsored by NASA Goddard Space Flight Center, National Security Agency, and NASA Electronic Parts and Packaging Program.

8th Military and Aerospace Programmable Logic Devices (MAPLD)
International Conference

September 7-9, 2005

Ronald Reagan Building and International Trade Center

Washington, DC

Call for Papers

Abstract Deadline April 25, 2005

**Goddard Space Flight Center
Office of Logic Design**

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