Abstracts are being accepted for the 7th 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:

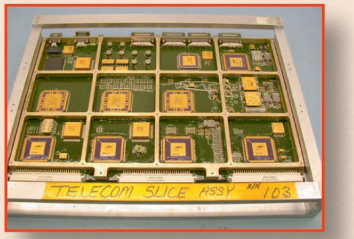
- "War Stories" and Lessons Learned
- High integrity systems design considerations.
- Design verification methods for radiation hardness and fault tolerance.
- Logic design, evaluation, design guidelines, rules, and recommendations.
- Do's and Don'ts for SEU mitigation and immunity; how to analyze and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

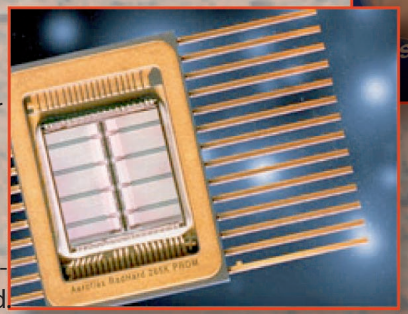
Technical Program

The Technical Program will consist of technical paper presentations and a poster session. We are planning an exciting program with several special invited speakers, including the annual Invited History talk. Select papers will be published in an AIAA peer-reviewed journal. This conference is open to both foreign participation and U.S. citizens and is unclassified. Authors can submit their papers by visiting http://klabs.org/mapld04.

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





Technical Sessions

- Applications: Military & Aerospace
  Virginia Ross and Ralph Kohler, Air Force Research Lab.
- Systems and Design Tools
  Tanya Vladimirova, University of Surrey; Hans Tiggeler
- Radiation and Mitigation Techniques
  Ken LaBel, NASA Goddard Space Flight Center
  James W. Howard, Jr., Jackson and Tull Chartered Engineers
- Processors: General Purpose and Arithmetic
  Keith Bergevin, Defense Microelectronics Activity (DMEA)
  Robert Hodson, NASA Langley Research Center
- Reconfigurable Computing, Evolvable Hardware, and Security *John McHenry, National Security Agency*
- Panel Session: "Why Is Space Exploration So Hard? The Roles of Man and Machine"

Birds of a Feather, Workshop, and Special Sessions

- "An Application Engineer's View" *Back for 2004!*
- Mitigation Methods for Reprogrammable Logic in the Space Radiation Environment
  Ken LaBel, NASA Goddard Space Flight Center
  Michael J. Wirthlin, Brigham Young University
- Reconfigurable Computing *New Extended Format!*
  Alan Hunsberger, National Security Agency
  Douglas Fouts, Naval Postgraduate School
- PLD Failures, Analyses, and the Impact on Systems
  NEW for 2004!!!
  Jay C. Schaefer, National Security Agency, Kay Jobe, Boeing
- Digital Engineering and Computer Design — A Retrospective and Lessons Learned for Today's Engineers, *Paul Ceruzzi, Smithsonian Air and Space Museum*
- NESC and Software: Joint Workshop with the NASA Engineering and Safety Center
  Steven S. Scott, NASA

Important: Technology Transfer Considerations, Copyright, and Proprietary Information

Proper government reviews, ownership of copyright, and the absence of proprietary information is solely the responsibility of the author. The organizing committee 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 published in the public domain.

Abstract Submittal Information

Please send a two page abstract to mapld2004@klabs.org. Include first author information for point of contact (name, affiliation, telephone number, and e-mail address).

Abstracts are due April 26, 2004. Late abstracts will be accepted for the Poster Session only. Acceptance letters will be sent May 17, 2004.

Industrial exhibit reservations should be sent to mapld2004@klabs.org and should include company name and contact information (phone and e-mail). Please see http://klabs.org/mapld04 for additional information.

Contact Information

For additional conference information, please visit klabs.org/mapld04

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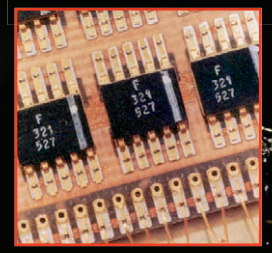
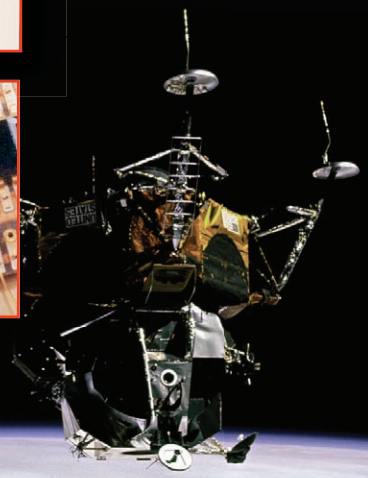
7th Military and Aerospace Programmable Logic Devices (MAPLD) International Conference

September 8-10, 2004

Ronald Reagan Building and International Trade Center

Washington, DC





Call for Papers

Abstract Deadline
April 26, 2004

Goddard Space Flight Center
Office of Logic Design