



FPL 2012

22nd International Conference on Field Programmable Logic and Applications
Oslo, Norway, Aug. 29-31, 2012



Call for Papers

The International Conference on Field Programmable Logic and Applications (FPL) is the first and largest conference covering the rapidly growing area of field-programmable logic. During the past 21 years, many of the advances achieved in reconfigurable architectures, applications, design methods and tools have been first published in the proceedings of the FPL conference series. Its objective is to bring together researchers and industry from all over the world for a wide ranging discussion on FPGAs, including, but not limited to: applications, advanced electronic design automation (EDA), novel system architectures, embedded processors, arithmetic, and dynamic reconfiguration.

FPL is organized yearly in Europe and attended by international top-level scientists and researchers. The 22nd FPL continues the tradition of the previous editions and will be hosted by the University of Oslo, Norway August 29-31, 2012.

The Program Committee cordially invites you to participate and submit your contribution to FPL 2012. The conference topics include, but are not limited to:

Architectures

- Adaptive communication & NoCs
- Defect- and fault tolerance
- Field programmable analog arrays
- FPGAs vs. Multicores / GPUs
- Low power architectures
- Partial, run-time reconfiguration
- Reconfigurable embedded systems
- Self-awareness, self-adaptivity
- Self-testing, self-healing

Applications

- Aerospace and automotive
- Application acceleration
- Bioinformatics & bio-inspired systems
- Communications and networking
- Finance and database acceleration
- HPC (fluid dynamics, climate simulation)
- Medical
- Physics and astronomy
- Security
- Signal processing and SDR

Design Methods and Tools

- Compilers and languages
- Hardware / software co-design
- Logic optimization and techn. mapping
- Open source tools
- Partial, run-time reconfiguration
- Placement and routing algorithms
- Radiation tolerance and reliability
- Rapid prototyping and emulation
- System-level design tools
- Testing, verification and benchmarks

Surveys, Trends and Education

- Emerging device technologies
- History/surveys of reconfigurable logic
- Million LUTs-/thousand cores designs
- Open source designs
- Roadmap of reconfigurable computing
- Teaching courses and tutorials

This year, we highly encourage authors to make their research results – including systems, benchmarks, or tools – freely available in order to gain research and design productivity within the FPL community. We further invite authors to present working demo systems or tools in conjunction with the PhD-Forum.

Authors are invited to submit original and unpublished contributions as 6 page papers in IEEE double column format to be considered as regular papers (up to two extra pages are permitted if necessary). Submissions accepted as posters will have 4 pages and extended abstracts for PhD forum contributions appear with 2 pages in the proceedings. Authors of selected papers will be invited to submit extended versions to a special issue in IET Computers & Digital Techniques. All contributions must be submitted electronically in PDF format on the web page www.fpl2012.org.

Each accepted paper must have at least one author with a paid registration for the manuscript to be included and published in the proceedings; an author is also expected to attend and present the paper at the conference.

FPL's PhD forum is intended as a venue for PhD students to present their work and receive feedback from other researchers. Papers accepted for the PhD forum will be published in the conference proceedings and presented at a special poster session during the conference. Contributions to the forum based on preliminary results or work in progress are particularly encouraged.

Proposals for tutorials, pre-, and post conference workshops within the technical scope of FPL are solicited. Submissions should be done through email directly to the program co-chairs: program@fpl2012.org.

| | | | |
|-------------------------|-------------------------------------|-----------------------|---|
| Important Dates: | • Submission deadline: | March 20, 2012 | Website: www.FPL2012.org |
| | • Acceptance notification: | June 1, 2012 | |
| | • Camera-ready/author registration: | June 15, 2012 | |

Organizing Committee

- General Chair
 - Jim Torresen, University of Oslo, Norway
- Program Co-Chairs
 - Dirk Koch, University of Oslo, Norway
 - Satnam Singh, Google, USA
- Publicity Co-Chairs
 - Katherine Compton, University of Wisconsin-Madison, USA
 - Reiner Hartenstein, Germany
 - Yoshiki Yamaguchi, Uni. of Tsukuba, Japan

Steering Committee

- Jürgen Becker, University of Karlsruhe, Germany
- Koen Bertels, TU Delft, Netherlands
- Eduardo Boemo, Universidad Autonoma de Madrid, Spain
- Peter Y.K. Cheung, Imperial College London, UK
- Martin Danek, UTIA AV CR, Czech Republic
- Fabrizio Ferrandi, Politecnico di Milano, Italy
- Manfred Glesner, Darmstadt University of Technology, Germany
- John Gray, Independent Consultant, UK

- Apostolos Dollas, TU of Crete, Greece
- Reiner Hartenstein, University of Kaiserslautern, Germany
- Udo Kebschull, Uni. Heidelberg, Germany
- Wayne Luk, Imperial College, London, UK
- Patrick Lysaght, Xilinx, Inc., USA
- Jari Nurmi, TU Tampere, Finland
- Lionel Torres, University of Montpellier II, France
- Roger Woods, Queen's University of Belfast, UK