

DAC 2010

User Track

Call for Extended Abstracts



**By
Users**

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Users**

47th DESIGN AUTOMATION CONFERENCE
June 13-18, 2010
Anaheim Convention Center, Anaheim, CA
www.dac.com



DESIGN AUTOMATION CONFERENCE

With a heritage of excellence for almost half a century, DAC continues to be the premier conference devoted to Electronic Design Automation (EDA) and the application of EDA tools in designing electronic systems. The DAC User Track, now in its second year, focuses on significant contributions from the EDA tool user community. In contrast to the traditional focus at DAC on algorithmic and methodology contributions, this track aims to share challenges and benefits of tool usage and provides educational and networking benefits for end users as well as tool developers. The User Track differs from vendor-specific user forums in that it is not tied to a specific EDA vendor.

Topics of Interest

The DAC 2010 User Track seeks submissions that highlight the challenges and benefits of EDA tool usage. The tools used may be from EDA vendors, developed in-house, or the result of combining one or more point tools. We specifically seek contributions from EDA users, application engineers, or a vendor-customer team. The submission may target chip design at all levels of abstraction, and across all application domains.

At its core, a suitable User Track paper has a flow for combining and applying point-tool design, optimization, and analysis, to build blocks that achieve particular design goals. A submission may be specific in scope (e.g., floorplan-stage substrate coupling) and in application domain (e.g., designing wireless handsets). Submissions may also present an investigative case study (e.g., illustrating the potential of a tool to accomplish a goal).

User Track Submission Process

Submissions will be evaluated by a technical committee consisting of leading industry experts and tool end-users. The process works in two stages:

- 1.) *Abstract submission:* Authors submit a **two-page extended abstract** describing the scope of the work and summarizing key innovations and benefits. These submissions are due no later than 5:00pm MT, January 18, 2010.
- 2.) *Presentation submission:* Authors of some selected submissions will be contacted by February 8, 2010 and requested to submit a presentation by March 1, 2010. Some other submissions may be accepted as poster presentations at this stage. The authors are also encouraged to submit a paper that will be posted at the DAC website after the conference is held.

Authors submitting slides will be notified of acceptance by April 5, 2010. The committee may accept a paper as either a short presentation, a long presentation, or as a poster. Authors of accepted oral presentations must sign a permission and release form for their presentation by April 18, 2010. Authors of accepted papers and posters will present their work at DAC during the week of June 13, 2010.

User Track Submission Guidelines

A User Track submission addresses innovative EDA tool use with high-quality results. The considerations used by the technical committee in acceptance decisions include:

- significance of results, supported by clear measurable criteria, including, but not limited to, improved quality of silicon, decreased complexity, and reduced time-to-market.
- level of innovation in tool use, e.g., utilizing one tool to obtain results that aid another tool, writing scripts to combine tools, user-end enhancements, and intelligent data management. A submission should not mirror the help section in the tool's user manual, but should instead address a creative way of using the EDA tool.
- ability to overcome design challenges such as scalability, integrating IP, and bridging front-end to back-end gaps.
- validation of the proposed techniques using real designs, case studies, or established benchmarks, which is considered essential.
- discussion of the conceptual limitations of tools and suggestions for future tool improvement. Solid technical contributions should address both the strengths and the weaknesses of the approach. Product marketing pitches are inappropriate for the User Track.
- quality of the writing, use of English, and organization.

Extended abstracts must be in PDF format, and should contain a title, authors, description of the methods, and key results and findings. References may be presented at the end of the extended abstract (for examples, see papers in the DAC proceedings from previous years). All abstracts must be submitted electronically using the EasyChair Conference System. A link to the submission website and details on writing an extended abstract can be found at <http://www.dac.com/47th/UTinfo.html>. For questions, please contact the User Track co-chairs: Soha Hassoun (soha@cs.tufts.edu), or Patrick Groeneveld (patrick@magma-da.com).

User Track Submission Categories

Authors are required to specify a category from the following list that reflects the type of tools that were used or the methodology most relevant to the submission:

1. System-Level Design (Front-End):

- 1.1. Hardware/Software Co-Design
- 1.2. System and High-Level Hardware Synthesis
- 1.3. Power/Area/Performance Trade-Offs
- 1.4. Embedded Software Tools
- 1.5. Bus and Network Communication Strategies
- 1.6. Emulation and Verification
- 1.7. IP Blocks and Integration

2. Silicon-Level Design (Back-End):

- 2.1. Physical Synthesis Tools and Techniques
- 2.2. Floorplanning
- 2.3. Timing and Circuit Analysis
- 2.4. DRC and DFM
- 2.5. Test and Debug
- 2.6. Analog and Mixed-Signal Design
- 2.7. Custom, Standard Cell, and FPGA Design Flows
- 2.8. Packaging and Board Integration
- 2.9. Tool Control and Integration

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