FMCAD 2007 CALL FOR PAPERS

International Conference on Formal Methods in Computer-Aided Design
November 11-14, 2007
Renaissance Austin Hotel, 9721 Arboretum Boulevard
Austin, Texas

http://fmcad.org/2007

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SCOPE OF CONFERENCE

FMCAD 2007 is the seventh in a series of conferences on the theory and application of formal methods in hardware and system design and verification. In 2005, the bi-annual FMCAD and sister conference CHARME decided to merge to form an annual conference with a unified community. The resulting unified FMCAD provides a leading international forum to researchers and practitioners in academia and industry for presenting and discussing groundbreaking methods, technologies, theoretical results, and tools for formally reasoning about computing systems, as well as open challenges therein. FMCAD 2007 will include a full day of tutorials, and will be co-located with the ACL2 Workshop. Topics of interest for the technical program include, but are not limited to:

- Foundations: advancing industrial-strength technologies in model checking, theorem proving, equivalence checking, abstraction and refinement techniques, property-preserving reduction techniques, compositional methods, decision procedures, SAT- and BDD-based methods, combining deductive methods with decision procedures, and probabilistic methods.

- Verification applications: tools, industrial experience reports, and case studies. We encourage the submission of materials relating to novel and challenging industrial-scale applications of formal methods, including problem domains where formal methods worked well or even fell short. We also encourage submissions relating to the development and execution of methodologies for formal and informal verification strategies.

- Applications of formal methods in design: topics relating to the application and applicability of assertion-based verification, equivalence checking, transaction-level verification, semi-formal verification, runtime verification, simulation and testcase generation, coverage analysis, microcode verification, embedded systems, software verification, concurrent systems, timing verification, and formal approaches to performance and power.

- Model-based approaches: modeling and specification languages, system-level design and verification, design derivation and transformation, and correct-by-construction methods.

- Formal methods for the design and verification of emerging and novel technologies: nano, quantum, biological, video, gaming, and multimedia applications.

PAPER SUBMISSIONS

Submissions must be made electronically as PDF through the FMCAD website, http://fmcad.org/2007. The proceedings will be published by the IEEE and will be available online in the ACM Digital Library and the IEEE Xplore Digital Library. There are two categories of papers:

A. REGULAR PAPERS

Regular papers are limited to 8 pages using the IEEE Transactions format on letter-size paper with a 10-point font size (see http://www.ieee.org/portal/pages/pubs/transactions/stylesheets.html). We recommend that self-citations be written in the third person, though authors will be required to identify themselves on their submissions. Submissions must contain original research that has not been previously published, nor concurrently submitted for publication. Any partial overlap with any published or concurrently submitted paper must be clearly indicated. If experimental results are reported, authors are strongly encouraged to provide adequate access to their data so that results can be independently verified. Papers should contain a short abstract of approximately 150 words clearly stating the contribution of the submission. Refer to http://fmcad.org/2007 for evolving submission details. A small number of accepted papers will be considered for a distinguished paper award.

B. SHORT PAPERS

The page limit is 4 pages using the same format as for regular papers. Short papers can describe applications, case studies, industrial experience reports, emerging results, or implemented tools with novel features. A demonstration will be required for accepted tool papers.

IMPORTANT DATES (firm)

Abstract Submission Deadline:	April 30, 2007
Paper Submission Deadline:	May 7, 2007
Acceptance Notification:	June 21, 2007
Final Version Due:	July 28, 2007

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