

Call for Papers

Eighth International Conference on Generative Programming and Component Engineering (GPCE 2009)

<http://www.gpce.org>

October 4-5, 2009, co-located with MODELS'09 and SLE'09 in Denver, Colorado

Scope Generative and component approaches are revolutionizing software development similar to how automation and components revolutionized manufacturing. Generative programming (developing programs that synthesize other programs), component engineering (raising the level of modularization and analysis in application design), and domain-specific languages (DSLs) (elevating program specifications to compact domain-specific notations that are easier to write, maintain, and analyze) are key technologies for automating program development.

GPCE 2009 provides a venue for researchers and practitioners interested in techniques for enhancing the productivity, quality, and time-to-market in software development that stems from deploying components and automating program generation. In addition to exploring cutting-edge techniques for developing generative and component-based software, we aim to foster further cross-fertilization between the software engineering research community and the programming languages community.

Research papers 10 pages in SIGPLAN proceedings style reporting original research results that contribute to scientific knowledge in the areas listed below.

Tool demonstrations Tool demonstrations should present available tools that implement novel generative and component-based software engineering techniques. Purely commercial tool demonstrations will not be accepted. Submissions should contain a tool description of 4 pages that will be published in the proceedings, and 2+2 pages of demonstration outline and screen shots.

Tutorials and workshops Tutorials and workshops of interest to the GPCE audience can be submitted to MODELS 2009. Please contact the corresponding MODELS chairs for submission details.

Topics GPCE 2009 seeks contributions in software engineering and in programming languages related to:

- Generative programming
 - Reuse, meta-programming, partial evaluation, multi-stage and multi-level languages, step-wise refinement, generic programming.
 - Semantics, type systems, symbolic computations, linking and explicit substitution, macros, templates, program transformation.

- Runtime code generation, compilation, active libraries, synthesis from specifications, development methods, generation of non-code artifacts, formal methods, reflection.

- Generative techniques for Product-line architectures, distributed, real-time and embedded systems, model-driven development and architecture, and resource bounded/safety critical systems.
- Component-based software engineering: reuse, distributed platforms and middleware, distributed systems, evolution, patterns, development methods.
- Integration of generative and component-based approaches.
- Domain engineering and domain analysis: domain-specific languages, visual and UML-based DSLs.
- Separation of concerns: aspect- and feature-oriented programming, intentional programming, multi-dimensional separation of concerns.
- Industrial applications of the above.

Submissions must use SIGPLAN's proceedings style.

Important Dates

May 11 Submission of abstracts
May 18 Submission of papers
June 30 Author notification
March 15 Workshop proposals
April 19 Tutorial proposals

General Chair Jeremy Siek (US)
Program Chair Bernd Fischer (UK, chair09@gpce.org)
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