

## Call for Papers



# 5th International Conference on Generative Programming and Component Engineering

October 22-26 2006, Portland, Oregon, USA

co-located with OOPSLA'06

<http://www.gpce.org/06>



Sponsored by ACM SIGPLAN, in cooperation with ACM SIGSOFT

**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* (elevating program specifications to compact domain-specific notations that are easier to write, maintain, and analyze) are key technologies for automating program development.

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

**Submissions** 10 pages in SIGPLAN proceedings style (sigplan-conf.cls) reporting research results and/or experience related to the topics above (PC co-chairs can advise on appropriateness). We particularly encourage original high-quality reports on applying GPCE technologies to real-world problems, relating ideas and concepts from several topics, or bridging the gap between theory and practice.

**GPCE Tutorials** extending over a half or a full day that give a deeper or broader insight than conventional lectures. Tutorial proposals are due **March 18, 2006**.

**GPCE Workshops** providing intensive collaborative environments, where generative and component technologists meet to discuss and resolve challenging problems in the field. Workshop proposals are due **March 18, 2006**.

### Program Committee

Giuseppe Attardi, Italy	Fabio Kon, Brazil
Elisa Baniassad, China	Karl Lieberherr, USA
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Zhenjiang Hu, Japan	Peri Tarr, USA
H.-Arno Jacobsen, Canada	Peter Thiemann, Germany
Oleg Kiselyov, USA	Eelco Visser, The Netherlands

### Important dates

Mar 18, 2006: Tutorials and workshop proposals due  
Apr 30, 2006: Abstracts due  
May 5, 2006: Papers and demonstrations due  
Jun 28, 2006: Notification

**Topics** GPCE seeks contributions in software engineering and in programming languages related (but not limited) to:

Generative programming

- Reuse, meta-programming, partial evaluation, multi-stage and multi-level languages, and step-wise refinement
- Semantics, type systems, symbolic computation, linking and explicit substitution, in-lining and macros, templates, and program transformation
- Runtime code generation, compilation, active libraries, synthesis from specifications, development methods, generation of non-code artifacts, formal methods, and reflection

Generative techniques for

- Product-line architectures
- Distributed real-time and embedded systems
- Model-driven development and architecture

Component-based software engineering

- Reuse, distributed platforms, distributed systems, evolution, patterns, development methods, deployment and configuration techniques, and formal methods

Integration of generative and component-based approaches  
Domain engineering and domain analysis

- Domain-specific languages (DSLs), including visual and UML-based DSLs

Separation of concerns

- Aspect-oriented and feature-oriented programming,
- Intentional programming and multi-dimensional separation of concerns

Industrial applications

### General chair

Stanislaw Jarzabek

### Program committee chairs

Douglas Schmidt & Todd Veldhuizen

### Publicity chair

Emir Pasalic

### Workshops/Tutorials chairs

Christa Schwanninger & Arno Jacobsen