**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

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### 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.

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### 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.

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### Important dates

- Feb 24, 2006: Tutorials and workshop proposals due
- Apr 30, 2006: Abstracts due
- May 5, 2006: Papers and demonstrations due
- Jun 28, 2006: Notification

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### 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

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### Program Committee

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<thead>
<tr>
<th>Elisa Baniassad</th>
<th>Fabio Kon</th>
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<tr>
<td>Don Batory</td>
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<td>H.-Arno Jacobsen</td>
<td>(others TBA)</td>
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### General chair

Stanislaw Jarzabek

### Program committee chairs

Douglas Schmidt & Todd Veldhuizen

### Publicity chair

Eelco Visser

### Workshops/Tutorials chairs

Christa Schwanninger & Arno Jacobsen