21st Annual ACM Conference on Object-Oriented Programming, Systems, Languages, and Applications

October 22-26, 2006
Oregon Convention Center
Portland, Oregon

Corporate Sponsors to Date

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Welcome

Welcome to OOPSLA 2006, the premier gathering of professionals from industry and academia, including practitioners, researchers, students, and educators—all sharing their experiences with object technology and its offshoots for the 20th year. OOPSLA offers an extraordinary array of venues and activities: presentations from invited speakers, technical papers, essays, practitioner reports, expert panels, demonstrations, formal and informal educational symposia, workshops, and diverse tutorials from world-class lecturers. The popular Onward! track presents out-of-the-box thinking at the frontiers of computing. Posters discuss late-breaking results, culminating in the Fifth Annual SIGPLAN Student Research Competition. Lightning Talks allow anyone to speak to the community about anything on their minds. And of course there are plenty of social opportunities for mingling and professional networking. That's just a sampling of what makes OOPSLA the conference of choice for software technologists, from recognized academics to undergraduate students, from industrial researchers to developers and managers, from the creators of technology to its users.

Peri Tarr, *Conference Chair*

Registration

Jun 15   Registration begins

Sep 15   Last day for reduced rates

Oct 5   Last day to advance register

Register electronically at
http://www.regmaster2.com/oopsla2006.html

Mail or fax your registration to:
OOPSLA 2006 Registration
c/o Registration Systems Lab
779 E. Chapman Rd.
Oviedo, FL 32765 USA

+1.407.366.4138

OOPSLA 2006

www.oopsla.org

OOPSLA 2006 at a Glance:

OOPSLA's Invited Speakers create some of the most memorable OOPSLA moments, providing perspectives and insights that can change how we make decisions, define our interests, and pursue our passions.

OOPSLA Tutorials offer you the chance to learn classic and cutting edge topics, from accomplished presenters with world-class expertise.

OOPSLA's Onward! Track offers technical and philosophical papers and films describing new paradigms or metaphors in computing, new thinking about objects, new framings of conceptual problems or systems, and new technologies.

OOPSLA's Educators' Symposium offers a venue for academics and consultants to share experiences and to explore new ideas that can help us understand and teach better.

OOPSLA Practitioner Reports present experience from practical software development projects. They feature description of projects in context, and include discussion of both technical issues and issues relating to people and processes.

OOPSLA Workshops are fun!, highly interactive events, where groups of object technologists meet to surface, discuss, and attempt to solve challenging problems.

OOPSLA Lightning Talks are 5-minute presentations on any topic of interest to the OOPSLA community. Lightning Talks will be presented back to back with strict enforcement of the 5-minute time limit.

OOPSLA DesignFest® is a training method, not in the courseware sense, but in the sportlike sense. It's an exercise in design with your peers. Test and enhance your design qualities? DesignFest® is for just that.

OOPSLA's Essays demonstrate or describe the way an interesting mind grapples with an idea, articulating an unfamiliar way of thinking about a topic that deserves the attention of the OOPSLA community.

OOPSLA Research Papers form the heart of the OOPSLA experience. Research papers describe substantiated new research or novel technical results, advance the state of the art, or report on significant experience or experimentation.

OOPSLA Panels offer a unique forum to spotlight emerging issues. They also give the OOPSLA community a way to tackle controversial and divisive topics head-on in a fun, interactive way that can shed welcome light on the issues we all must deal with.

OOPSLA Posters provide an excellent forum for authors to present their work in an informal and interactive setting. Posters are ideal to showcase speculative, late-breaking results or to introduce interesting, innovative work.

OOPSLA Demonstrations provide an opportunity for companies and universities to show their latest work to an experienced audience.

Meeting of the Minds: OOPSLA 2006 is co-located with several other events of interest to the OO community.

GPCE (Generative Programming and Component Engineering) is a conference promoting the application and innovation of foundational techniques for supporting automatic program generation.

PLoP (Pattern Languages of Programming) is an opportunity for pattern authors to have their pattern languages critically reviewed by fellow authors, with criticism offered in the form of *Writer's Workshops*.

Dynamic Languages Symposium is a forum for discussion of dynamic languages (such as Python, Ruby, PHP, JavaScript and others), their implementation and application, as well as ideas for future research and development.

Schedule

Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday
21-Oct	**22-Oct**	**23-Oct**	**24-Oct**	**25-Oct**	**26-Oct**
Registration	Registration	Registration	Registration	Registration	Registration
			Invited Speakers	Invited Speakers	Invited Speakers
	OOPSLA Tutorials	OOPSLA Tutorials		OOPSLA Tutorials	OOPSLA Tutorials
	Workshops	Workshops		Essays	Workshops
PLoP	PLoP	PLoP	Onward!	Onward!	Onward!
PLoP Tutorial		Educators' Symposium	Research Papers	Research Papers	Research Papers
			Practitioner Reports	Practitioner Reports	Practitioner Reports
		Doctoral Symposium	Panels	Panels	Panels
	GPCE Tutorials	GPCE Tutorials	GPCE	GPCE	GPCE
		Dynamic Languages Symposium	Demos	Demos	Demos
	DesignFest®	Posters & Welcome Reception	DesignFest®	Lightning Talks	Lightning Talks
		Newcomers' Session		Special Event	Ice Cream Social

Invited Speakers

Invited speakers at OOPSLA create some of the most memorable OOPSLA moments, providing perspectives and insights that can change how we make decisions, define our interests, and pursue our passions.

Dr. Guy Steele

Sun Fellow Guy Steele is a researcher for Sun Microsystems Laboratories, working on the Programming Language Research project.

His research interests include Algorithms, Compilation, Distributed Systems, High Performance Computing, Java, Lisp Scheme, Object Oriented Programming, Operating Systems, Programming Languages, Software, and Supercomputer design.

Dr. Brenda Laurel

Brenda Laurel is a designer, researcher and writer. Her work focuses on interactive narrative, human-computer interaction, and cultural aspects of technology. She holds an M.F.A. and Ph.D. in theatre from the Ohio State University. Her doctoral dissertation was the first to propose a comprehensive architecture for computer-based interactive fantasy and fiction.

Dr. Laurel serves as Chair and graduate faculty member of the graduate Media Design Program at the Art Center College of Design in Pasadena, California, and works as a Senior Director and Distinguished Engineer at Sun Microsystems Labs in Menlo Park, California. She has published extensively on topics including interactive fiction, computer games, autonomous agents, virtual reality, and political and artistic issues in interactive media.

Dr. Philip Wadler

Philip Wadler is Professor of Theoretical Computer Science at the University of Edinburgh. He holds a Royal Society-Wolfson Research Merit Fellowship and is a Fellow of the Royal Society of Edinburgh. Previously, he worked or studied at Avaya Labs, Bell Labs, Glasgow, Chalmers, Oxford, CMU, Xerox Parc, and Stanford, and has visited as a guest professor in Paris, Sydney, and Copenhagen.

Dr. Wadler appears at position 70 on Citeseer's list of most-cited authors in computer science; is a winner of the POPL Most Influential Paper Award; and sits on the ACM Sigplan Executive Committee. He contributed to the designs of Haskell, Java, and XQuery, and is a co-author of *XQuery from the Experts* (Addison Wesley, 2004) and *Generics and Collections* in Java (O'Reilly, forthcoming). He has delivered invited talks in locations ranging from Aizu to Zurich.

*Other invited speakers will be announced on the OOPSLA web site (*www.oopsla.org*) as they are confirmed.*

www.oopsla.org

Tutorials

Take advantage of OOPSLA tutorials! If you think you're too inexperienced (or too experienced!) to benefit from OOPSLA tutorials, please think again.

OOPSLA gathers the world's finest educators covering the full breadth of classic and cutting-edge topics. Our presenters not only have world-class expertise, they're also successful presenters who know how to share their hard-won knowledge with you.

OOPSLA will provide 57 tutorials to choose from. It's a pity that the maximum that you can take is seven! The web site has more details on the tutorials. Take time to find the best tutorials for you. That time will certainly be repaid.

Coherence and Community: Exploring coherence via group problem solving
George Platts, *artist and creativity consultant*

Experiments and successes in coherence and team-building
George Platts, *artist and creativity consultant*

Totally Awesome Computing: Python as a General-Purpose Programming Language
Chuck Allison, *Utah Valley State College*

Find Your Voice
Gail E. Harris, *Instantiated Software Inc.*

Write Your Own User Guide
Lauren Wiener, *Freelance Technical Writer*

Understanding Security with Patterns,
Peter Sommerlad, *HSR Hochschule für Technik Rapperswil, Switzerland*
Markus Schumacher, *Virtual Forge GmbH*

Making the Most of Eclipse
Doug Tidwell, Eric Long, Akmal Chaudhri, *IBM*

SOA from an Architectural Viewpoint
Michael Stal, *Siemens Corporate Technology*

Software Architecture - Principles, Strategies, Qualities
Michael Stal, *Siemens Corporate Technology*

Organizational Patterns: Beyond Agility to Effectiveness
Neil Harrison, *Utah Valley State College*

Storytelling with FIT
Steve Freeman, *M3p*
Mike Hill, *Mandu*

Making RUP Agile
Michael Hirsch, *Zuehlke Engineering AG*

Component Systems using OSGi
Peter Kriens, *Aqute*

Building Service-Oriented Architectures with Web Services
Olaf Zimmermann, *IBM Zurich*

Pattern Writing Bootcamp
Robert Hanmer, *Lucent Technologies*
Linda Rising, *Independent Consultant*

The CLOS Metaobject Protocol: Generic Functions and Metaobject Protocol
Pascal Costanza, *Vrije Universiteit Brussel*

Pair Storytelling: An Introduction to Paired Creativity and Productivity
Joseph Bergin, Fred Grossman, *Pace University*

Patterns in Communications Software
Greg Utas, *Pentennea LLC*

An Introduction to C++ Library Functionality in TR1 and at Boost
Scott Meyers, *Independent Consultant*

Developing a Domain-Specific Modeler with the Eclipse Graphical Modeling Framework (GMF)
Richard Gronback, Artem Tikhomirov, *Borland*

Concurrent Object-Oriented Programming for Modern Architectures
Vijay Saraswat, Vivek Sarkar, *IBM TJ Watson Research Center*

Seamless Use of Object-Oriented Models from Requirements to Software Design
Hermann Kaindl, *Vienna University of Technology*

Pattern-Oriented Software Architecture: Patterns for Concurrent and Networked Objects
Douglas Schmidt, *Vanderbilt University*

Model-Driven Development of Distributed Systems
Markus Voelter, *Independent Consultant*
Douglas C. Schmidt, *Vanderbilt University*

Rapidly Designing & Testing Great User Interfaces
Jeff Patton, *Thoughtworks*

Programmers are from Mars, Customers are from Venus: A practical guide to working with customers on XP projects
Angela Martin, *ThoughtWorks*
Robert Biddle, *Carleton University*

Introduction to the Eclipse Modeling Framework
Nick Boldt, *IBM Rational Software*
Marcelo Paternostro, *IBM Rational Software*

Domain-Driven Design: Putting the Model to Work
Eric Evans, *Domain Language, Inc.*

Programming mobile devices: An introduction
Tommi Mikkonen, *Tampere University of Technology*

A Tour of Responsibility-Driven Design,
Rebecca Wirfs-Brock, *Wirfs-Brock Associates*

Agile Software Development in the Large
Jutta Eckstein, *IT Communication*

The Art of Telling Your Design Story,
Rebecca Wirfs-Brock, *Wirfs-Brock Associates*

Information Systems Architecture: Stakeholders, Viewpoints and Perspectives
Eoin Woods, *UBS Investment Bank*

SOA - From Concepts to Reality,
Nicolai Josuttis, *Independent Consultant*

Demystifying GCC: Under the Hood of the GNU Compiler Collection
Ron Cytron, Morgan Deters, *Washington University, St. Louis*
Kenneth Zadeck, *NaturalBridge, Inc.*

Introduction to UML 2: A Fair and Balanced Overview
Bran Selic, *IBM Canada*

Use-Case Model Refactoring and Improvement
Gunnar Overgaard, *Seb It Ab, Sweden*
Karin Palmkvist, *Generic Integration AB, Sweden*

Dynamic Programming at the Model-level,
Andy Evans, Tony Clark, *Xactium Limited*

Dynamic languages for statically typed minds
Niclas Nilsson, *Activa*

Security Patterns and Secure Software Architecture
Munawar Hafiz, *University of Illinois, Urbana-Champaign*

Agility, for Managers, Programmers, and All
Alistair Cockburn, *Humans and Technology*

Techniques and Principles for Rolling Your own Methodology
Alistair Cockburn, *Humans and Technology*

Squeezing the Last Drop of Value out of your Project Management Strategies
Alistair Cockburn, *Humans and Technology*

Writing Effective Use Cases for Projects Agile and Otherwise
Alistair Cockburn, *Humans and Technology*

Making your Methodology Crystal Clear and More
Alistair Cockburn, *Humans and Technology*

Revolutionizing Software Quality through Static Analysis Tools
Jonathan Aldrich, *Carnegie Mellon University*

Building Solid Distributed Enterprise Software Architectures: Architecture Principles and UML Views,
Jeff Garland, *CrystalClear Software*
Richard Anthony, *General Dynamics C4 Systems*

Generate the repetitive, boring code - how to write code generators
Niclas Nilsson, *Activa*
Jon-Erling Dahl, *Consat Engineering AB*

Test-Driven Development - hands-on!
Niclas Nilsson, *Activa*,
Jimmy Nilsson, *Jnsk AB*

Ruby on Rails - a kickstart
Niclas Nilsson, *Activa*

Incremental Releases Users & Stakeholders Will Love: How to deliver functionally complete valuable incremental releases
Jeff Patton, *Thoughtworks*

Effective Concurrent Programming in Java
Brian Goetz, *Quiotix Corp*
David Holmes, *Sun Microsystems, Australia*

Refactoring Databases: Evolutionary Database Design
Pramod Sadalage, *Thoughtworks*
Scott Ambler, *Ronin International*

Ajax: Introduction and Architecture
Stuart Halloway, *Relevance, LLC*

Building Distributed Applications with the Sun SPOT
Bernard Horan, *Sun Microsystems, UK*
Randall Smith, *Sun Microsystems, US*
John Daniels, Dave Cleal, *Syntropy Ltd*

Modular AOP Using Design Rules and XPIs
Kevin Sullivan, *University of Virginia*

Portland's Green

You might expect some rain in Portland, and rain it does, though less than in Atlanta, Birmingham, Houston, Indianapolis or Seattle. You'll likely want an umbrella and a jacket, with typical October highs around 64°F/18°C and lows around 45°F/7°C.

www.oopsla.org

Workshops

OOPSLA workshops are fun! These workshops are highly interactive events, where groups of object technologists meet to surface, discuss, and attempt to solve challenging problems. You learn a lot when you share your ideas and experiences with others in the field, and build relationships that are an essential part of the OOPSLA experience.

The workshop topics are diverse. If you'd like to attend one of them, and haven't already done so, please contact the relevant organizers as they are responsible for managing attendance. In most cases you will be asked to submit a short position paper in advance to ensure that the workshop is appropriate for you. We hope to see you in a workshop at this year's OOPSLA!

Library-Centric Software Design
Jaakko Järvi, *Texas A&M*
Josh Bloch, *Google*
David Musser, *Rensselaer Polytechnic Institute*
Sibylle Schupp, *Chalmers Univ. of Technology*
Jeremy Siek, *Rice University*

Ultra Large Scale Systems
Dick Gabriel, *Sun Microsystems, Inc.*
Linda Northrop, *The Software Engineering Institute*
Doug Schmidt, *Vanderbilt University*
Kevin Sullivan, *The University of Virginia*

Eclipse Technology eXchange (ETX)
Michael G. Burke, *IBM T.J. Watson Research Center*
Martin Robillard. *McGill University*

Fifth "Killer Examples" for Design Patterns Workshop
Carl G. Alphonce, *University at Buffalo*
Michael E. Caspersen, *University at Buffalo*
Adrienne Decker, *University at Buffalo*
Bruce Trask, *PrismTech*

The Sixth OOPSLA Workshop on Domain-Specific Modeling
Juha-Pekka Tolvanen, *University of California, Berkeley*
Jonathan Sprinkle, *University of California, Berkeley*
Jeff Gray, *University of Alabama at Birmingham*

Building Software for Sensor Networks
Steffen Schaefer, *IBM*
Jens Jahnke, *University of Victoria*
Tzilla Elrad, *Illinois Institute of Technology*

NetBeans Plug-In/RCP Application Development
Tim Boudreau, *Sun Microsystems*
Jaroslav Tulach, *Sun Microsystems*
Rich Unger, *Nuance*

Escaped from the Lab: Software Practices in Large Organizations
Dennis Mancl, *Lucent Technologies - Bell Labs*
Steven D. Fraser, *QUALCOMM*
Greg Utas, *Pentennea LLC*
Bill Opdyke, *North Central College*
Ricardo Lopez, *QUALCOMM*

From Embedded to Enterprise. How to Get Application Portability
Peter Kriens, *Aqute*
Rob van den Berg, *Siemens*
Richard Hall, *University Grenoble*
BJ Hargrave, *IBM*
Marcel Offermans, *Luminis*

Creating an Informative Workspace
Rachel Davies
David Hussman

Fourth International Workshop on SOA and Web Services Best Practices
Anders Aas Bjerkestrand, *BEKK Consulting*
Ali Arsanjani, *IBM Corporation*
Lars Arne Skaar, *TietoEnator Banking Solutions*
Kerrie Holley, *IBM Corporation*
Amir Zeid, *British University in Egypt*

Resource Management in Object Systems
Ciarán Bryce, *INRIA*
Grzegorz Czajkowski, *Google*
Walter Binder, *researcher*

First Workshop on Model-Based Testing and Object-Oriented Systems (M-TOOS)
Wolfgang Grieskamp, *Microsoft Research*
Debra Richardson, *University of California at Irvine*
Clay Williams, *IBM T. J. Watson Research Center*

Event-Driven Architecture
Mamdouh Ibrahim, *IBM*
Opher Etzion, *IBM*

Onward!

The Onward! track provides a forum for visions of the future of our field. Onward! is the place to reveal the revolutionary, air the provocative, and expose the subversive. We especially appreciate submissions from a range disciplines with important contributions for thinking about software, including Human Computer Interaction, Industrial Design, Information Systems, Psychology, Philosophy, and Cultural Studies of all kinds.

The Geography of Programming
Elisa Baniassad, Sebastian Fleissner, *The Chinese University of Hong Kong*

Model-Based DSL Frameworks
Jean Bezivin, Frederic Jouault, Ivan Kurtev, Patrick Valduriez, *INRIA and LINA, University of Nantes*

Keeping Track of Crosscutting Requirements in UML Models via Context-Based Constraints
Felix Buebl, *Epigenomics AG*

Conscientious Software
Richard Gabriel, Ron Goldman, *Sun Microsystems*

A Commensalistic Software System
Sebastian Fleissner, Elisa Baniassad, *The Chinese University of Hong Kong*

Pegasus: First Steps Towards a Naturalistic Programming Language
Roman Knöll, Mira Mezini, *Darmstadt University of Technology*

JDA: A Step Towards Large-Scale Reuse on the Web
Seung Chan Lim, Peter Lucas, *MAYA Design Inc.*

Collaborative Diffusion: Programming Antiobjects
Alexander Repenning, *University of Colorado*

Intentional Software
Charles Simonyi, Magnus Christerson, Shane Clifford, *Intentional Software*

Applying a UML-based Agent Modeling Language to the Autonomic Computing Domain
Ivan Trencansky, Radovan Cervenka, *Whitestein Technologies Slovakia*
Dominic Greenwood, *Whitestein Technologies Switzerland*

The Onward! track will also include films. Watch the web site (www.oopsla.org) for information on these films.

DesignFest®

DesignFest® is a training method, not in the courseware sense, but in the sportlike sense. It is an exercise in design with your peers. Test and enhance your design qualities? DesignFest® is for just that. As part of the OOPSLA 2006 registration process, you can register for DesignFest® at no additional cost.

Essays

The Essays track aims to enhance OOPSLA by using the special characteristics of the essay form. An essay demonstrates or describes the way an interesting mind grapples with an idea. The mind and the process of grappling are as important as the idea. Our ideal essay displays an unfamiliar way of thinking being applied to a topic that deserves the attention of the OOPSLA community.

Essays
On System Design
Jim Waldo, *Sun Microsystems, Inc.*

Portland Moves You

Portland has several forms of public transportation, including the MAX lightrail system. You can take the MAX from the PDX airport directly to the Oregon Conference Center or to the Doubletree hotel. See www.trimet.org.

You can also always call a cab:

Green Cab	503.252.4422
Portland Taxi Company	503.256.5400
Radio Cab	503.227.1212
Yellow Cab	503.227.1234

www.oopsla.org

Research papers

Research papers form the heart of the OOPSLA experience. Research papers describe substantiated new research or novel technical results, advance the state of the art, or report on significant experience or experimentation.

Compilation

Method-Specific Dynamic Compilation using Logistic Regression
John Cavazos, Michael O'Boyle, *University of Edinburgh*

Replay Compilation: Improving Debuggability of a Just-in-Time Compiler
Kazunori Ogata, Tamiya Onodera, Kiyokuni Kawachiya, Hideaki Komatsu, Toshio Nakatani, *IBM Research, Tokyo Research Laboratory*

Declarative, Formal, and Extensible Syntax Definition for AspectJ: A Case for Scannerless Generalized-LR Parsing
Martin Bravenboer, *Utrecht University*
Eric Tanter, *University of Chile*
Eelco Visser, *Utrecht University*

Generics

Concepts: First-Class Language Support for Generic Programming in C++
Douglas Gregor, *Indiana University*
Jaakko Jarvi, *Texas A&M University*
Jeremy Siek, *Rice University*
Bjarne Stroustrup, Gabriel Dos Reis, *Texas A&M University*
Andrew Lumsdaine, *Indiana University*

A Flow-Based Approach for Variant Parametric Types
Wei-Ngan Chin, Florin Craciun, Siau-Cheng Khoo, Corneliu Popeea, *National University of Singapore*

Generic Ownership for Generic Java
Alex Potanin, James Noble, *Victoria University of Wellington*
Dave Clarke, *Centrum voor Wiskunde en Informatica*
Robert Biddle, *Carleton University*

Language Design

Statically Scoped Object Adaptation with Expanders
Alessandro Warth, Milan Stanojevic, Todd Millstein, *University of California, Los Angeles*

Eliminating Distinctions of Class: Using Prototypes to Model Virtual Classes
DeLesley Hutchins, *University of Edinburgh*

J&: Nested Intersection for Scalable Software Composition
Nathaniel Nystrom, Xin Qi, Andrew C. Myers, *Cornell University*

Virtual Machines

Uniform Proxies for Java
Patrick Eugster, *Purdue University*

Adapting VM Techniques for Seamless Aspect Support
Christoph Bockisch, *Darmstadt University of Technology*
Matthew Arnold, *IBM T. J. Watson Research Center*
Tom Dinkelaker, Mira Mezini, *Darmstadt University of Technology*

Efficient Control Flow Quantification
Christoph Bockisch, Sebastian Kanthak, Michael Haupt, *Darmstadt University of Technology*
Matthew Arnold, *IBM T. J. Watson Research Center*
Mira Mezini, *Darmstadt University of Technology*

Types

A Formal Framework for Component Deployment
Yu David Liu, Scott F. Smith, *The Johns Hopkins University*

Efficient Software Model Checking of Data Structure Properties
Paul Darga, *University of Michigan*
Chandrasekhar Boyapati, *University of Michigan*

An Operational Semantics and Type Safety Proof for Multiple Inheritance in C++
Daniel Wasserrab, *Universität Passau*
Tobias Nipkow, *Technische Universität München*
Gregor Snelting, *Universität Passau*
Frank Tip, *IBM T. J. Watson Research Center*

Performance

Virgil: Objects on the Head of a Pin
Ben L. Titzer, *UCLA*

JAVANA: A System for Building Customized Java Program Analysis Tools
Jonas Maebe, Dries Buytaert, Lieven Eeckhout, Koen De Bosschere, *Ghent University*

The DaCapo Benchmarks: Java Benchmarking Development and Analysis
Stephen M Blackburn, *Intel*
Robin Garner, *Australian National University*
Chris Hoffmann, Asjad M Khan, *University of Massachusetts at Amherst*
Kathryn S. McKinley, *University of Texas at Austin*
Rotem Bentzur, *University of New Mexico*
Amer Diwan, *University of Colorado*
Daniel Feinberg, *University of New Mexico*
Samuel Z. Guyer, *Tufts University*
Antony Hosking, *Purdue University*
Maria Jump, *University of Texas at Austin*
J. Eliot B. Moss, *University of Massachusetts*
Darko Stefanovic, *University of New Mexico*
Thomas VanDrunen, *Purdue*
Daniel von Dincklage, *University of Colorado*
Benjamin Wiedermann, *University of Texas at Austin*

Frameworks and Tools

Design Fragments Make Using Frameworks Easier
George Fairbanks, David Garlan, William Scherlis, *Carnegie Mellon University*

JTL - The Java Tools Language
Tal Cohen, Joseph (Yossi) Gil, Itay Maman, *Technion - Israel Institute of Technology*

A Framework for Implementing Pluggable Type Systems
Chris Andreae, James Noble, *Victoria University of Wellington*
Shane Markstrum, Todd Millstein, *University of California, Los Angeles*

Concurrency

Eliminating Synchronization-Related Atomic Operations with Biased Locking and Bulk Rebiasing
Kenneth Russell, David Detlefs, *Sun Microsystems, Inc.*

A Flexible Framework for Implementing Software Transactional Memory
Maurice Herlihy, *Brown University*
Victor Luchangco, Mark Moir, *Sun Microsystems Laboratories*

Software Engineering

Isolating and Relating Concerns in Requirements using Latent Semantic Analysis
Kwun Kit Lo, Man Kwun Chan, Elisa Baniassad, *The Chinese University of Hong Kong*

XSnippet: Mining For Sample Code
Naiyana Tansalarak, Kajal Claypool, *UMass - Lowell*

Understanding the Shape of Java Software
Gareth Baxter, Marcus Frean, *Victoria University of Wellington*
Hayden Melton, *University of Auckland*
James Noble, Mark Rickerby, Hayden Smith, *Victoria University of Wellington*
Ewan Tempero, *University of Auckland*
Matt Visser, *Victoria University of Wellington*

Portland's Downtown

Pioneer Courthouse Square
Located at SW Broadway and Yamhill in downtown Portland, Pioneer Courthouse Square is a favorite place of Portlanders. Formerly a hotel site, then a parking lot, the square was purchased by the city and redesigned as an urban open space for all to enjoy. Nicknamed "Portland's living room," it's a perfect spot to stop with a cup of coffee (abundantly available on nearly every block downtown).

You can take the MAX to Pioneer Courthouse Square - www.trimet.org

www.oopsla.org

Practitioner Reports

OOPSLA Practitioner Reports present experience from practical software development projects. They feature description of projects in context, and include discussion of both technical issues and issues relating to people and processes. Practitioner report presentations are an ideal place to hear and discuss experiences in applying new technology or processes in practical situations.

Incremental Software Engineering Techniques

Towards Agile Security in Web Applications
Vidar Kongsli, *Bekk Consulting AS*

The Composition Refactoring Triangle (CRT) Practical Toolkit: From Spaghetti to Lasagna
Ethan Hadar, *Mercury Interactive Systems*
Irit Hadar, *Department of Management Information Systems, Haifa University*

Incremental Return on Incremental Investment: Engenio's Transition to Software Product Line Practice
William Hetrick, *LSI Logic*
Charles Krueger, *BigLever Software*
Joseph Moore, *LSI Logic*

Enterprise Architecture Modeling

Architectural improvement by use of strategic level Domain-Driven Design
Einar Landre, *Statoil ASA*
Harald Wesenberg, *Statoil ASA*

Using Domain-Driven Design to evaluate Commercial Off-The-Shelf software
Einar Landre, *Statoil ASA*
Harald Wesenberg, *Statoil ASA*

Software Architecture at a Large Financial Firm
George Fairbanks, *Carnegie Mellon University*
Kevin Bierhoff, *Carnegie Mellon University*
Desmond D'Souza, *Kinetium Inc.*

Applications Crossing SW/HW Boundary

Techniques Applied to a Real-time, Embedded, Spaceborne Application
Alexander Murray, *Jet Propulsion Laboratory, California Institute of Technology*
Mohammad Shahabuddin, *Jet Propulsion Laboratory, California Institute of Technology*

Secure Trade Lane: A Sensor Network Solution for more reliable and more secure Container Shipments
Steffen Schaefer, *IBM*

Using Model-Driven Engineering to Complement Software Product Line Engineering in Developing Software Defined Radio Components and Applications
Bruce Trask, *MDE Systems*
Angel Roman, *MDE Systems*

Changing the Language of Programming

The Dynamics of Changing Dynamic Memory Allocation
Neil Harrison. *Utah Valley State College*
John Meiners, *Avaya Inc.*

Designing APIs that Stand the Test of Time
Timothy Boudreau, *Sun Microsystems*
Jaroslav Tulach, *Sun Microsystems*

Evolving an Embedded Domain-Specific Language in Java
Steve Freeman, *M3p*
Nat Pryce, *B13 Services*

Panels

OOPSLA panels offer a unique forum to spotlight emerging issues. They also give the OOPSLA community a way to tackle controversial and divisive topics head-on in a fun, interactive way that can shed welcome light on the issues we all must deal with. We hope that you find these panels informative, memorable, and entertaining.

Design Patterns: Beginnings and Futures
Dedicated to the Memory of John Vlissides
Steven Fraser (Moderator), *QUALCOMM*
Erich Gamma, *IBM*
Richard Helm, *Boston Consulting Group*
Ralph Johnson, *University of Illinois*

Objects and Databases: State of the Union in 2006
William R. Cook (Moderator), *University of Texas at Austin*
Robert Greene, *Versant*
Patrick Linskey, *BEA*
Erik Meijer, *Microsoft*
Ken Rugg, *Progress Software*
Craig Russell, *Sun Microsystems*
Bob Walker, *GemStone Systems*
Christof Wittig, *DB4objects*

Young Guns/OO: The Next Generation
Jeff Overbey, *University of Illinois*
Brian Foote, *The Refactory*

The Ultra Challenge: Software Systems Beyond Big
Steven Fraser (Moderator), *QUALCOMM*
Richard Gabriel, *Sun Microsystems*
Gregor Kiczales, *University of British Columbia*
Peter Neumann, *SRI International*
Linda Northrop, *SEI*
Douglas Schmidt, *Vanderbilt University*

A Fishbowl with Piranhas: Coalescence, Convergence or Divergence?
The Future of Agile Software Development Methods
Linda Rising (Co-Facilitator), *Independent Consultant*
Steven Fraser (Co-Facilitator), *QUALCOMM*
Alistair Cockburn, *Humans and Technology*
Jutta Eckstein, *Objects in Action*
Ron Jeffries, *Ron E. Jeffries Associates*
Randy Miller, *Microsoft*
Dave Thomas, *Bedarra*

Educators' Symposium

Join us at OOPSLA's forum for educators in object-oriented and related technologies. This one-day symposium offers a venue for academics and consultants to share experiences and to explore new ideas that can help us understand and teach better. This year we are pleased to have as our keynote speaker Willy Farrell.

Willy is a Senior Software Engineer at IBM with over 25 years of programming experience. Willy is a technical consultant to faculty around the world, working with IBM's Academic Initiative as part of the IBM Developer Skills team. For the past 6 years he has kept busy visiting universities to train faculty in the latest technologies.

Keynote Address

Objects in a Service Oriented World
Willy Farrell, *IBM*

Papers

Java Interfaces in CS 1 Textbooks
Thomas VanDrunen, *Wheaton College*

A Novice's Process of Object-Oriented Programming
Michael E. Caspersen, *University of Aarhus, Denmark*
Michael Kölling, *University of Kent, Canterbury, United Kingdom*

Helping Students Appreciate Test-Driven Development (TDD)
Jaime Spacco, William Pugh, *University of Maryland*

Hello, M.U.P.P.E.T.S.: Using a 3D Collaborative Virtual Environment to Motivate Fundamental Object-Oriented Learning
Christopher Egert, Kevin Bierre, Andrew Phelps, *Rochester Institute of Technology*
Phil Ventura, *St. Thomas University*

Expertiza: Students Helping to Write an OOD Text
Edward F. Gehringer, Luke M. Ehresman, *North Carolina State University*
Dale J. Skrien, *Colby College*

oops -- Discovering LL(1) through Objects
Axel T. Schreiner, James Heliotis, *Rochester Institute of Technology*

How natural is natural language? Improving user participation in requirements gathering by writing better use cases
Dorota Jagielska, Paul Wernick, Mick Wood, Steve Bennett *Systems & Software Group, School of Computer Science University of Hertfordshire, United Kingdom*

John Vlissides

The OOPSLA community deeply mourns the passing of John Vlissides and will celebrate his life as a part of OOPSLA 2006.

www.oopsla.org

Doctoral Symposium

The goal of the Doctoral Symposium is to provide useful guidance for the completion of the dissertation research and the initiation of a research career. The Symposium will provide an interactive forum for doctoral students in one of two phases in their doctoral progress.

Apprentices: Students who are just beginning their research, are not ready to actually make a research proposal, but are interested in learning about structuring research and getting some research ideas.

Proposers: Students who have progressed far enough in their research to have a structured proposal, but will not be defending their dissertation in the next 12 months.

Lightning Talks

A Lightning Talk is a 5-minute presentation on any topic of interest to the OOPSLA community. Lightning Talks will be presented back to back with strict enforcement of the 5-minute time limit.

Lightning Talks are a popular and exciting format in the open-source community, and you can find lots of advice about them with a good search engine.

Lightning Talk submissions consist solely of an abstract (of up to 250 words) which will be published on the OOPSLA website.

Student Research Competition

After its remarkable success in previous years, OOPSLA is hosting once more an ACM SIGPLAN Student Research Competition. The first round of evaluation will be held jointly with the OOPSLA Posters. The ACM SIGPLAN Student Research Competition shares the Poster session's goal to facilitate students' interaction with researchers and to provide both sides with the opportunity to learn of ongoing, current research. Additionally, the Student Research Competition affords students with experience with both formal presentations and evaluations.

Posters

OOPSLA Posters provide an excellent forum for authors to present their work in an informal and interactive setting. Posters are ideal to showcase speculative, late-breaking results or to introduce interesting, innovative work. They allow authors and interested participants to connect to each other and to engage in discussions about the work presented. Posters provide authors with a unique opportunity to draw attention to their work during the conference. Poster abstracts are published in the OOPSLA Companion and in the ACM Digital Library.

Dynamic Languages Symposium

The Dynamic Languages Symposium (DLS) at OOPSLA 2006 is a forum for discussion of dynamic languages, their implementation and applications.

While mature dynamic languages including Smalltalk, Lisp, Scheme, and Prolog continue to grow and inspire new converts, a new generation of dynamic scripting languages such as Python, Ruby, PHP, Perl and JavaScript are successful in a wide range of applications.

DLS provides a world-class forum for researchers and practitioners to come together to share their knowledge and experience, and to discuss and further groundbreaking ideas and new research directions.

Demonstrations

OOPSLA demonstrations provide an opportunity for companies and universities to show their latest work to an experienced audience. This can be work in progress, commercial applications, proof of concepts, results of academic research, tools, systems or any topic that has interesting object-oriented aspects. Demonstrations are not focused on selling a product but to highlight, explain and present the technical aspects of it. Demonstrators may actively solicit feedback from the usually very technically savvy audience. In the past, this has made for some very interesting demonstration sessions.

Student Volunteers

The Student Volunteer program is an opportunity for students from around the world to associate with the top people in object and related technologies, research, and software development. In return for a few hours of their time, student volunteers receive complimentary registration, free admission to tutorials (space permitting), and other benefits. A limited number of volunteers may receive some financial support in return for additional volunteer hours. In past years, job assignments included assisting with symposia and panels, checking badges at doors, working at the information booth, and helping with conference registration.

Portland Hotels

Doubletree Lloyd Center
1000 NE Multnomah
Portland, OR 97202
Phone: 503.281.6111
Book reservations at
http://doubletree.hilton.com/en/dt/groups/private_groups/rllc-dt_oop/

Courtyard Portland Downtown/Lloyd Center
435 NE Wasco
Portland, OR 97232
Phone: 503.234.3200
Book reservations online at
www.Marriott.com/pdxcl
For One King Bed enter code: ACMACMA
For Two Queen Beds enter code: ACMACMB

Red Lion Hotel Portland – Convention Center
1021 NE Grand Ave
Portland, OR 97232
Phone: 503.235.2100
Call the hotel and mention rate code ACM/OOPSLA

These hotels are nearby the home of OOPSLA 2006, the Oregon Conference Center, located at 777 N.E. Martin Luther King Jr. Blvd. Portland, Oregon 97212

Portland Brews

Portland is famous for its microbreweries. Here are a few of the many choices:

Bridgeport Brewpub + Bakery	1313 NW Marshall Street	503.241.3612	www.bridgeportbrew.com
Hair of the Dog Brewing Co.	4509 SE 23rd	503.232.6585	www.hairofthedog.com
Laurelwood Public House & Brewery	1728 NE 40th	503.282.0622	www.laurelwoodbrewpub.com
MacTarnahan's Taproom at Portland Brewing	2730 NW 31st	503.228.5269	www.macsbeer.com
Widmer Brothers Gasthaus Pub	955 N Russell	503.281.3333	www.widmer.com

You can check out even more local breweries/brewpubs at www.onbeer.org/brewmemb.html

ACM

1515 Broadway
New York, New York 10036

The First Society in Computing

21st Annual ACM Conference on Object-Oriented Programming, Systems, Languages, and Applications

October 22-26, 2006

Oregon Convention Center

Portland, Oregon

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