



















- CD MAIN PAGE
- OOPSLA 2007 Proceedings
- OOPSLA 2007 Companion
- DLS 2007
- HPC-GECO/CompFrame'07
- ISMM 2007
- WikiSym 2007
- Author Index
- Sponsors & Supporters
- ACM SIGPLAN Membership

Please be sure you have the latest version and updates of <u>Adobe Acrobat</u> <u>Reader</u> installed.

These CD-proceedings are a cross-platform medium which enables Windows and Mac users to share the same directory structure and access a common set of files. To navigate this CD a graphical web browser is required. The full-text content on this disk is in Adobe PDF format. A version of Adobe Acrobat Reader is required to view the content.

Copyright © 2007 by the Association for Computing Machinery, Inc. (ACM). Permission to make digital or hard copies of portions of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage and that copies bear this notice and the full citation on the first page. Copyright for components of this work owned by others than ACM must be honored. Abstracting with credit is permitted. To copy otherwise, to republish, to post on servers or to redistribute to lists, requires prior specific permission and/or a fee. Request permission to republish from: Publications Dept., ACM, Inc. Fax +1 (212) 869-0481 or permissions@acm.org

For other copying of articles that carry a code at the bottom of the first or last page, copying is permitted provided that the per-copy fee indicated in the code is paid through the Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923.

Notice to Past Authors of ACM-Published Articles

ACM intends to create a complete electronic archive of all articles and/or other material previously published by ACM. If you have written a work that has been previously published by ACM in any journal or conference proceedings prior to 1978, or any SIG Newsletter at any time, and you do NOT want this work to appear in the ACM Digital Library, please inform permissions@acm.org, stating the title of the work, the author(s), and where and when published.

ISBN: 978-1-59593-634-9

Additional copies may be ordered prepaid from: ACM Order Department General Post Office P.O. Box 30777, New York, NY 10087-0777

ACM Order Number 459071

Made in the USA



2007 ACM SIGPLAN International Conference on Object-Oriented Programming, Systems, Languages and Applications

SIGPLAN

1 of 1 10/3/2007 11:35 AM



Dynamic Languages Symposium Chairs' Welcome

The Dynamic Languages Symposium (DLS) is a forum for discussion of dynamic languages, their implementation and application. While mature dynamic languages including Smalltalk, Lisp, Scheme, Self, and Prolog continue to grow and inspire new converts, a new generation of dynamic scripting languages such as Python, Ruby, PHP, and JavaScript are successful in a wide range of applications. DLS provides a place for researchers and practitioners to come together and share their knowledge, experience, and ideas for future research and development. This year 30 papers were submitted to the Dynamic Languages Symposium of which 9 papers were accepted. The program committee reviewed each paper and met electronically to select papers for the final program. This year we are pleased host invited talks by Mark Miller and Jim Hugunin.

Program Committee:

Gilad Bracha, Cadence Design Systems, USA

Johan Brichau, Université Catholique de Louvain, Belgium

William Clinger, Northeastern University, USA

William Cook, University of Texas at Austin, USA

Pascal Costanza, Vrije Universiteit Brussel, Belgium (co-chair)

Stéphane Ducasse, Université de Savoie, France

Brian Foote, Industrial Logic, USA

Robert Hirschfeld, Hasso-Plattner-Institut Potsdam, Germany (co-chair)

Jeremy Hylton, Google, USA

Shriram Krishnamurthi, Brown University, USA

Michele Lanza, University of Lugano, Switzerland

Michael Leuschel, Universität Düsseldorf, Germany

Henry Lieberman, MIT Media Laboratory, USA

Martin von Löwis, Hasso-Plattner-Institut Potsdam, Germany

Philippe Mougin, OCTO Technology, France

Oscar Nierstrasz, University of Berne, Switzerland

Kent Pitman, PTC, USA

Ian Piumarta, Viewpoints Research Institute, USA

Nathanael Schärli, Google, Switzerland

Anton van Straaten, AppSolutions.com, USA

Dave Thomas, Bedarra Research Labs, Canada

Dave Ungar, USA

Allen Wirfs-Brock, Microsoft, USA

Roel Wuyts, IMEC & Unversité Libre de Bruxelles, Belgium

Pascal Costanza

Vrije Universiteit Brussel, Belgium OOPSLA 2007 DLS Co-chair pascal.costanza@prog.vub.be

Robert Hirschfeld

Hasso-Plattner-Institut Potsdam, Germany OOPSLA 2007 DLS Co-chair hirschfeld@hpi.uni-potsdam.de





	CD MAIN PAGE
>	OOPSLA 2007 Proceedings
>	OOPSLA 2007 Companion
	DLS 2007
	HPC-GECO/CompFrame'07
	ISMM 2007
>	WikiSym 2007
•	Author Index
	Sponsors & Supporters

DLS 2007 Table of Contents

DLS'07 Welcome

DLS'07 Organization

Invited Talk

Tradeoffs in Retrofitting Security: An Experience Report (page 1)

Mark Samuel Miller (Google, Inc.)

Session 1: Multi-paradigm Programming

Session Chair: Shriram Krishnamurthi (Brown University)

Report on the Probabilistic Language Scheme (page 2)

Alexey Radul (Massachusetts Institute of Technology)

OMeta: an Object-Oriented Language for Pattern Matching (page 11)

Alessandro Warth (University of California, Los Angeles)

Ian Piumarta (Viewpoints Research Institute)

RETURN TO TOP

ACM SIGPLAN Membership

Session 2: Integrating Static Features into Dynamic Languages

Session Chair: William Cook (University of Texas at Austin)

Relationally-Parametric Polymorphic Contracts (page 29)

Arjun Guha (Brown University)

Arrays of Objects (page 20) Morten J. Kromberg (Dyalog Ltd.)

Jacob Matthews (University of Chicago)

Robert Bruce Findler (University of Chicago)

Shriram Krishnamurthi (Brown University)

Dynamic Ownership in a Dynamic Language (page 41)

Donald Gordon (Innaworks Development Ltd)

James Noble (Victoria University of Wellington)

RPython: a Step Towards Reconciling Dynamically and Statically Typed OO Languages (page 53)

Davide Ancona (University of Genova) Massimo Ancona (University of Genova) Antonio Cuni (University of Genova)

Nicholas D. Matsakis (ETH Zurich)

RETURN TO TOP

Session 3: Software Adaptation

Session Chair: Roel Wuyts (IMEC & Université Libre de Bruxelles)

An Adaptive Package Management System for Scheme (page 65)
Manuel Serrano (INRIA)

Erick Gallesio (University of Nice Sophia-Antipolis)

Highly Dynamic Behaviour Adaptability through Prototypes with Subjective Multimethods (page 77)

Sebastián González (Université catholique de Louvain)

Kim Mens (Université catholique de Louvain)

Patrick Heymans (University of Namur)

Mirages: Behavioral Intercession in a Mirror-based Architecture (page 89)

Stijn Mostinckx (Vrije Universiteit Brussel)

Tom Van Cutsem (Vrije Universiteit Brussel)

Stijn Timbermont (Vrije Universiteit Brussel)

Éric Tanter (University of Chile)

Invited Talk

Bringing Dynamic Languages to .NET with the DLR (page 101)

Jim Hugunin (Microsoft Corporation)



2007 ACM SIGPLAN International Conference on Object-Oriented Programming, Systems, Languages and Applications

SIGPLAN

10/5/2007 1:48 PM

1 of 2

Dynamic Languages Symposium (DLS) 2007 – Organization

Program Chairs: Pascal Costanza (Vrije Universiteit Brussel, Belgium)

Robert Hirschfeld (Hasso-Plattner-Institut Potsdam, Germany)

Program Committee: Gilad Bracha (Cadence Design Systems, USA)

Johan Brichau (Université Catholique de Louvain, Belgium)

William Clinger (Northeastern University, USA)
William Cook (University of Texas at Austin, USA)

Pascal Costanza (Vrije Universiteit Brussel, Belgium) co-chair

Stéphane Ducasse (Université de Savoie, France)

Brian Foote (Industrial Logic, USA)

Robert Hirschfeld (Hasso-Plattner-Institut Potsdam, Germany) co-chair

Jeremy Hylton (Google, USA)

Shriram Krishnamurthi (Brown University, USA)
Michele Lanza (University of Lugano, Switzerland)
Michael Leuschel (Universität Düsseldorf, Germany)
Henry Lieberman (MIT Media Laboratory, USA)

Martin von Löwis (Hasso-Plattner-Institut Potsdam, Germany)

Philippe Mougin (OCTO Technology, France)
Oscar Nierstrasz (University of Berne, Switzerland)

Kent Pitman (PTC, USA)

Ian Piumarta (Viewpoints Research Institute, USA)

Nathanael Schärli (Google, Switzerland) Anton van Straaten (AppSolutions.com, USA) Dave Thomas (Bedarra Research Labs, Canada)

Dave Ungar (USA)

Allen Wirfs-Brock (Microsoft, USA)

Roel Wuyts (IMEC & Unversité Libre de Bruxelles, Belgium)

Sponsor: SIGPLAN