

DSLDI 2014: Second Workshop on Domain Specific Languages Design and Implementation

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Abstract

The Second Workshop on Domain Specific Languages Design and Implementation (DSLDI 2014) is collocated with SPLASH 2014 conference and held in Portland, Oregon, USA on October 20th 2014. The goal of the DSLDI workshop is to bring together researchers and practitioners interested in sharing ideas on how Domain Specific Languages (DSLs) should be designed, implemented, supported by tools, and applied in realistic application contexts. More generally, we are interested in building a community that can drive forward the development of modern DSLs.

Categories and Subject Descriptors D.3 [PROGRAMMING LANGUAGES]

Keywords DSLs, Programming Languages

1. Introduction

The Second Workshop on Domain Specific Languages Design and Implementation (DSLDI 2014) is collocated with SPLASH 2014 conference and held in Portland, Oregon, USA on October 20th 2014. The goal of the DSLDI workshop is to bring together researchers and practitioners interested in sharing ideas on how Domain Specific Languages (DSLs) should be designed, implemented, supported by tools, and applied in realistic application contexts. We are interested in discovering how already known domains such as graph processing or machine learning can be best supported by DSLs, but also in exploring new domains that could be targeted by DSLs. More generally, we are interested in building a community that can drive forward the development of modern DSLs.

2. Workshop Format and Scope

DSLDI is a single-day workshop consisting of a series of short talks whose main goal is to trigger exchange of opinion and discussions. DSLDI's topics of interest include, but are not limited to, the following ones:

- DSL implementation techniques, including compiler-level and runtime-level solutions

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- utilization of domain knowledge for driving optimizations of DSL implementations
- utilizing DSLs for managing parallelism and hardware heterogeneity
- DSL performance and scalability studies
- DSL tools, such as DSL editors and editor plugins, debuggers, refactoring tools, etc.
- applications of DSLs to existing as well as emerging domains, for example graph processing, image processing, machine learning, analytics, robotics, etc.
- practitioners reports, for example descriptions of DSL deployment in a real-life production setting

All submissions, in the form of short abstracts (max. 2 pages) are subject to review by the members of DSLDI's Program Committee.

3. Program Committee

- Martin Erwig, Oregon State University, USA
- Matthew Flatt, University of Utah, USA
- Klaus Ostermann, University of Marburg, Germany
- Tiark Rumpf, Purdue University and Oracle Labs, USA
- Tijs van der Storm, CWI, Netherlands
- Juha-Pekka Tolvanen, University of Jyväskylä/Metacase, Finland
- Emina Torlak, University of California, Berkeley, USA
- Laurence Tratt, King's College London, UK
- Markus Völter, Itemis/independent, Germany
- Guido Wachsmuth, TU Delft, Netherlands

4. Workshop Organizers

Sebastian Erdweg Sebastian is post-doctoral researcher in the Software Technology Group at TU Darmstadt where he works on extensible programming languages and their application to DSLs. Besides DSLs, Sebastian's research focuses on static and dynamic analyses of program generators, language composition, type systems, expressive module systems, and formal methods. Sebastian co-organizes Dagstuhl Seminar 15062 on domain-specific languages (to take place Feb. 2015) and the workshop ParsingSLE (to take place Sep. 2014). He received degrees in Computer Science from TU Darmstadt (BSc 2007), Aarhus University (MSc 2009), and Philipps-Universität Marburg (PhD 2013).

Adam Welc Adam Welc is a Principal Member of Technical Staff at Oracle Labs where he works in the Virtual Machine Research Group. Previously he worked at Adobes Advanced Technology Lab and at Intels Programming Systems Lab. Adams general interests are in the area of programming language design and implementation, with specific interests in concurrency control, compiler and runtime system optimizations, as well as domain specific languages. Adam was the primary organizer of DSLDI 2013. He received his PhD in Computer Science from Purdue University in 2006.