PROCEEDINGS OF THE
2007 WORKSHOP ON
SCHEME AND FUNCTIONAL PROGRAMMING

EDITOR:
DANNY DUBÉ

TECHNICAL REPORT
DIUL-RT-0701

DÉPARTEMENT D’INFORMATIQUE ET DE GÉNIE LOGICIEL
FACULTÉ DES SCIENCES ET DE GÉNIE

Pavillon Adrien-Pouliot
Université Laval
Québec (QC), Canada
G1K 7P4

SEPTEMBRE 2007
Preface

This report contains the papers presented at the eighth Workshop on Scheme and Functional Programming, held on Sunday, September 30, 2007 in Freiburg, Germany, affiliated with the 2007 International Conference on Functional Programming (ICFP).

In response to the call for papers, eighteen papers were submitted. The discussions of the program committee were held in a virtual meeting. Fourteen papers were accepted. One of these was later withdrawn by its authors. Certain papers were presented as talks and others, as posters. We would like to thank the external reviewers Robby Findler (University of Chicago), Holger Gast (University of Tübingen), Oleg Kiselyov (FNMO), Eric Knauel (University of Tübingen), Jacob Matthews (University of Chicago), and Michael Sperber (DeinProgramm) for their gracious help.

We also want to thank the members of the steering committee for their advice, especially Robby Findler who, as last year’s workshop organizer and program chair, had to answer so many questions. We also thank the ICFP general chair, Ralf Hinze, the workshop co-chairs, Graham Hutton and Matthias Blume, the local arrangements chair, Peter Thiemann, the local organizer Markus Degen, and the ACM for sponsoring the workshop and handling registrations and arrangements at the workshop site.

Danny Dubé
Laval University
Organizer and Program Chairman
for the program committee

Program Committee
John Clements (Cal Poly) Aubrey Jaffer (ClearMethods Inc.)
Danny Dubé (Laval University) Christian Queinnec (University Paris 6)
Martin Gasbichler (Zühlke Engineering) Chung-chieh Shan (Rutgers University)

Steering Committee
William D. Clinger (Northeastern University) Christian Queinnec (University Paris 6)
Marc Feeley (University of Montréal) Manuel Serrano (INRIA Sophia Antipolis)
Robby Findler (University of Chicago) Olin Shivers (Northeastern University)
Dan Friedman (Indiana University) Mitchell Wand (Northeastern University)
## Schedule and Table of Contents

**9:00am**  **WELCOME**

**9:10am**  **TECHNICAL SESSION I**  
Chairman: Marc Feeley (Université de Montréal)  
**Advanced Macrology and the Implementation of Typed Scheme**  
Ryan Culpepper, Sam Tobin-Hochstadt (Northeastern University),  
and Matthew Flatt (University of Utah)  
**Well-typed Programs Can’t Be Blamed**  
Philip Wadler (University of Edinburgh) and Robert Bruce Findler (University of Chicago)

**10:00am**  **Break**

**10:30am**  **TECHNICAL SESSION II**  
Chairman: John Clements (Cal Poly)  
**Generation-Friendly Eq Hash Tables**  
Abdulaziz Ghuloum and R. Kent Dybvig (Indiana University)  
**Exceptional Continuations in JavaScript**  
Florian Loitsch (INRIA Sophia Antipolis)  
**Software Transactions Meet First-Class Continuations**  
Aaron Kimball and Dan Grossman (University of Washington)  
**Towards a Portable and Mobile Scheme Interpreter**  
Adrien Piérdard (Université Paris 6) and Marc Feeley (Université de Montréal)  
**Applications of Fold to XML Transformation**  
Andy Wingo

**12:30pm**  **Lunch**

**2:00pm**  **TECHNICAL SESSION III**  
**αKanren — A Fresh Name in Nominal Logic Programming**  
William E. Byrd and Daniel P. Friedman (Indiana University)  
**An Executable Rewriting Logic Semantics of K-Scheme**  
Patrick Meredith, Mark Hills, and Grigore Roşu (University of Illinois Urbana-Champaign)  
**Toward Abstract Profiling**  
Nguyen-Minh Bui (Université Laval)  
**Deriving a Comprehensive Document from a Concise Document — Document Engineering in Scheme**  
Kurt Nørmark (Aalborg University)  
**Gannet: a Scheme for Task-level Reconfiguration of Service-based Systems-on-Chip**  
Wim Vanderbauwhede (University of Glasgow)  
**Implementing Language-Dependent Lexicographic Orders in Scheme**  
Jean-Michel Hufflen (University of Franche-Comté)

**3:30pm**  **Break**

**4:00pm**  **DISCUSSION ON R6RS**  
Chairman: Mitchell Wand (Northeastern University)