Implementation and Application of Functional Languages

19th International Symposium, IFL 2007

Freiburg, Germany, 27th-29th September 2007

THURSDAY, 27th September

8:00–8:50	Registration
8:50–9:00	Welcome
9:00–10:40	**Session: Compilation I (*Sven-Bodo Scholz*)**
9:00	*Marco T Morazan, Ulrik Schultz*
p. 71	Call Graphs, Dominator Trees, and Lambda Lifting
9:25	*Marc Feeley*
p. 503	Speculative Inlining of Predefined Procedures in an R5RS Scheme to C Compiler
9:50	*Atze Dijkstra, Jeroen Fokker, Doaitse Swierstra*
p. 107	The Structure of the Essential Haskell compiler, or Coping with Compiler Complexity
10:15	*Neil Mitchell, Colin Runciman*
p. 334	Supero: Making Haskell Faster
10:40–11:20	Coffee Break
11:20–13:00	**Session: Applications I (*Ken Friis Larsen*)**
11:20	*Colin Runciman, David Duke, Rita Borgo, Malcolm Wallace*
p. 474	Polytopes & Polytypes: Generic Isosurfacing & Functional Programming
11:45	*Erik Zuurbier, Rinus Plasmeijer*
p. 232	Car Damage Subrogation Workflow — an iTask exercise
12:10	*Rinus Plasmeijer, Jan Martin Jansen, Pieter Koopman, Peter Achten*
p. 252	Transparent Ajax and Client-Site Evaluation of iTasks
12:35	*Baltasar Trancón y Widemann, David L. Parnas*
p. 431	Tabular Expressions and Total Functional Programming
13:00–14:00	Lunch
14:00–15:40	**Session: Parallelism I (*Zoltán Horvath*)**
14:00	*Mercedes Hidalgo-Herrero, Yolanda Ortega-Mallén*
p. 89	To be or not to be ... lazy
14:25	*Phil Trinder, Abyd Al Zain, Kevin Hammond*
p. 139	Evaluating and Using a Grid-Enabled Parallel Haskell
14:50	*Jost Berthold, Mischa Dieterle, Rita Loogen, Steffen Priebe*
p. 152	Functional Master-Worker Skeletons
15:15	*Matthew Naylor, Colin Runciman*
p. 290	The Reduceron: Widening the von Neumann Bottleneck for Graph Reduction using an FPGA
15:40–16:20	Coffee Break

16:20–18:00 **Session: Types I (*Glenn Strong*)**

16:20 *Marko van Eekelen, Olha Shkaravska*

p. 254 Static Inference of Non-Monotonic Polynomial Sized Types

16:45 *Dirk Kleeblatt*

p. 350 Checking Dependent Types Efficiently

17:10 *Edsko de Vries, Rinus Plasmeijer, David Abrahamson*

p. 416 Uniqueness Typing Simplified

17:35 *Mikolaj Konarski*

p. 457 The Simple Category of Modules

FRIDAY, 28th September

8:30–9:00 Registration

9:00–10:40 **Session: Contracts (*Manuel Chakravarty*)**

9:00 *Dana Na Xu, Simon Peyton Jones, Koen Claessen*

p. 382 Static Contract Checking for Haskell

9:25 *Robert Bruce Findler, Shu-yu Guo, Anne Rogers*

p. 179 Lazy Contract Checking for Immutable Data Structures

9:50 *Stephan Herhut, Sven-Bodo Scholz, Robert Bernecky, Clemens Grelck, Kai Trojahner*

p. 534 From Contracts Towards Dependent Types: Proofs by Partial Evaluation

10:15 *Máté; Tejfel, Tamás Kozsik, Zoltán Horváth*

p. 224 An Interpretation of Temporal Properties in Functional Programs

10:40–11:20 Coffee Break

11:20–13:00 **Session: Algorithms & Data Structures (*Rita Loogen*)**

11:20 *Malcolm Wallace*

p. 140 Partial Parsing: Combining Choice with Commitment

11:45 *Steffen Mazanek, Mark Minas*

p. 24 Graph Parser Combinators

12:10 *Frank Huch, Sebastian Fischer*

p. 258 Efficient, Modular Tries

12:35 *Sebastian Fischer, Frank Huch*

p. 318 Generic Programming Combinators

13:00–14:10 Lunch and meeting of steering committee

14:10–16:00 **Session: Foundations (*Doaitse Swierstra*)**

14:10 Announcements for IFL 2008

14:20 *Olivier Danvy*

p. 552 Amortizing the Cost of Commuting Conversions when Beta-Reducing Monadic Normal Forms and A-Normal Forms

14:45 *José Almeida, Ian Mackie, Jorge Sousa Pinto, Miguel Vilaça*

p. 40 Encoding Iterators in Interaction Nets

15:10 *Chunxu Liu, Greg Michaelson*

p. 366 HW-Hume in Isabelle

15:35 *Salvador Lucas, Ricardo Peña*

p. 8 Termination and Complexity Bounds for SAFE programs

16:00– Excursion and Dinner including Peter Landin Prize Presentation

SATURDAY, 29th September

8:30–9:00 Registration

9:00–10:40 **Session: Applications II (*Peter Achten*)**

9:00 *Michael Nissen, Ken Friis Larsen*
p. 268 FunSETL — Functional Reporting for ERP Systems

9:25 *Clemens Grelck, Frank Penczek*
p. 531 On Implementing S-Net

9:50 *Olivier Michel, Jean-Louis Giavitto*
p. 301 Incremental Extension of a Domain Specific Language Interpreter

10:15 *Oleg Lobachev*
p. 168 Towards an Implementation of a Computer Algebra System in a Functional Programming Language

10:40–11:20 Coffee Break

11:20–13:00 **Session: Program Development (*Malcolm Wallace*)**

11:20 *Huiqing Li, Simon Thompson*
p. 55 Testing Erlang Refactorings with QuickCheck

11:45 *Christopher Brown, Simon Thompson*
p. 211 Splitting and Merging Program Refactorings

12:10 *Bernd Braßel, Holger Siegel*
p. 400 Debugging Lazy Functional Programs by Asking the Oracle

12:35 *Ádám Sipos, Zoltán Porkoláb, Norbert Pataki, Viktória Zsók*
p. 489 Meta⟨Fun⟩ — Towards a Functional-Style Interface for C++ Template Metaprograms

13:00–14:00 Lunch

14:00–15:40 **Session: Compilation & Parallelism (*Marc Feeley*)**

14:00 *Peter Jonsson, Johan Nordlander*
p. 441 Positive Supercompilation for a Higher Order Call-By-Value Language

14:25 *Andreas Koltes, John O'Donnell*
p. 519 Circuit Parallelism in Haskell Programs

14:50 *Martin Sulzmann, Edmund Lam*
p. 195 Haskell – Join – Rules

15:15 *Kevin Hammond*
Lightweight Multithreading for Effective Exploitation of Multicore Architectures using Hume

15:40–16:20 Coffee Break

16:20–18:00 **Session: Types II (*Michel Mauny*)**

16:20 *Martin Sulzmann, Kenny Zhuo Ming Lu*
p. 123 XHaskell — Adding Regular Expression Types to Haskell

16:45 *Tom Schrijvers, Martin Sulzmann, Simon Peyton Jones, Manuel Chakravarty*
p. 233 Towards Open Type Functions for Haskell

17:10 *Pieter Koopman, Peter Achten, Rinus Plasmeijer*
p. 230 On the Validation of Specifications used in Model-Based Testing

17:35 *Glenn Strong*
p. 229 Approaches to Subtyping in Functional Languages

Local Organisation

Markus Degen	Universität Freiburg, Germany
Peter Thiemann	Universität Freiburg, Germany
Stefan Wehr	Universität Freiburg, Germany

Programme Committee

Peter Achten	Radboud University Nijmegen, The Netherlands
Kenichi Asai	Ochanomizu University, Japan
Manuel Chakravarty	The University of New South Wales, Australia
Olaf Chitil (chair)	University of Kent, UK
Martin Erwig	Oregon State University, Oregon, USA
Marc Feeley	Université de Montrèal, Canada
Martin Gasbichler	Zühlke Engineering AG, Switzerland
Kevin Hammond	University of St. Andrews, Scotland
Zoltán Horváth	Eötvös Loránd University, Budapest, Hungary
John Hughes	Chalmers University of Technology, Sweden
Ken Friis Larsen	University of Copenhagen, Denmark
Rita Loogen	Philipps-Universität Marburg, Germany
Michel Mauny	ENSTA, France
Sven-Bodo Scholz	University of Hertfordshire, UK
Clara Segura	Universidad Complutense de Madrid, Spain
Tim Sheard	Portland State University, Oregon, USA
Glenn Strong	Trinity College, Dublin, Ireland
Doaitse Swierstra	Utrecht University, The Netherlands
Malcolm Wallace	The University of York, UK