

Table of Contents

Invited Papers

Formal Methods in CafeOBJ	1
<i>Kokichi Futatsugi</i>	
The Essence of XML (Preliminary Version)	21
<i>Jérôme Siméon and Philip Wadler</i>	
To the Gates of HAL: A HAL Tutorial	47
<i>María García de la Banda, Bart Demoen, Kim Marriott, and Peter J. Stuckey</i>	

Tutorial Paper

Functional Logic Design Patterns	67
<i>Sergio Antoy and Michael Hanus</i>	

Constraints

On Consistency and Width Notions for Constraint Programs with Algebraic Constraints	88
<i>Klaus Meer</i>	
Solving Mixed Quantified Constraints over a Domain Based on Real Numbers and Herbrand Terms	103
<i>Miguel García-Díaz and Susana Nieva</i>	

Program Transformation and Analysis

On the Correctness of the Factoring Transformation	119
<i>Pascual Julián Iranzo</i>	
Lambda-Lifting in Quadratic Time	134
<i>Olivier Danvy and Ulrik P. Schultz</i>	

Semantics

The Well-Founded Semantics in Normal Logic Programs with Uncertainty	152
<i>Yann Loyer and Umberto Straccia</i>	

Linearly Used Effects: Monadic and CPS Transformations
into the Linear Lambda Calculus 167
Masahito Hasegawa

Coinductive Interpreters for Process Calculi 183
Luis Soares Barbosa and José Nuno Oliveira

Rewriting

Descendants and Head Normalization of Higher-Order Rewrite Systems ... 198
Hideto Kasuya, Masahiko Sakai, and Kiyoshi Agusa

Narrowing Failure in Functional Logic Programming 212
Francisco Javier López-Fraguas and Jaime Sánchez-Hernández

Compilation Techniques

The HiPE/x86 Erlang Compiler:
System Description and Performance Evaluation 228
Mikael Pettersson, Konstantinos Sagonas, and Erik Johansson

Dynamic-Cut with Definitional Trees 245
Rafael Caballero and Francisco Javier López-Fraguas

Programming Methodology

The Head Condition and Polymorphic Recursion 259
Jan-Georg Smaus

Structural Abstraction and Application in Logic Programming 275
António Porto

VM λ : A Functional Calculus for Scientific Discovery 290
Eijiro Sumii and Hideo Bannai

Author Index 305