

Table of Contents

Invited Talk

Inductive Theorem Proving by Program Specialisation: Generating Proofs for Isabelle Using Ecce	1
<i>Helko Lehmann and Michael Leuschel</i>	

Specification and Synthesis

Predicate Synthesis from Inductive Proof Attempt of Faulty Conjectures . .	20
<i>Francis Alexandre, Khaled Bsaïes, and Moussa Demba</i>	
Correct OO Systems in Computational Logic	34
<i>Kung-Kiu Lau and Mario Ornaghi</i>	
Specification and Synthesis of Hybrid Automata for Physics-Based Animation	54
<i>Thomas Ellman</i>	
Adding Concrete Syntax to a Prolog-Based Program Synthesis System (Extended Abstract)	56
<i>Bernd Fischer and Eelco Visser</i>	

Verification

Formal Development and Verification of Approximation Algorithms Using Auxiliary Variables	59
<i>Rudolf Berghammer and Markus Müller-Olm</i>	
Formal Reasoning about Efficient Data Structures: A Case Study in ACL2	75
<i>José Luis Ruiz-Reina, José Antonio Alonso-Jiménez, María José Hidalgo, and Francisco Jesús Martín-Mateos</i>	

Analysis

A Program Transformation for Backwards Analysis of Logic Programs . . .	92
<i>John P. Gallagher</i>	
An Efficient Staging Algorithm for Binding-Time Analysis	106
<i>Takuma Murakami, Zhenjiang Hu, Kazuhiko Kakehi, and Masato Takeichi</i>	
Proving Termination with Adornments	108
<i>Alexander Serebrenik and Danny De Schreye</i>	

Transformation and Specialisation

Constructively Characterizing Fold and Unfold	110
<i>Tjark Weber and James Caldwell</i>	
Deterministic Higher-Order Patterns for Program Transformation	128
<i>Tetsuo Yokoyama, Zhenjiang Hu, and Masato Takeichi</i>	
From Interpreter to Logic Engine by Defunctionalization	143
<i>Dariusz Biernacki and Olivier Danvy</i>	
Linearization by Program Transformation	160
<i>Sandra Alves and Mário Florido</i>	
Continuation Semantics as Horn Clauses	176
<i>Qian Wang and Gopal Gupta</i>	

Constraints

Simplification of Database Integrity Constraints Revisited: A Transformational Approach	178
<i>Henning Christiansen and Davide Martinenghi</i>	
Integration and Optimization of Rule-Based Constraint Solvers	198
<i>Slim Abdennadher and Thom Frühwirth</i>	
Introducing ESRA, a Relational Language for Modelling Combinatorial Problems	214
<i>Pierre Flener, Justin Pearson, and Magnus Ågren</i>	

Author Index	233
-------------------------------	-----

Logic Based Program Synthesis and Transformation
13th International Symposium LOPSTR 2003, Uppsala,
Sweden, August 25-27, 2003, Revised Selected Papers
Bruynooghe, M. (Ed.)
2004, X, 238 p., Softcover
ISBN: 978-3-540-22174-6