

Table of Contents

Invited Papers

Local Reasoning about Programs that Alter Data Structures	1
<i>Peter O’Hearn, John Reynolds, and Hongseok Yang</i>	
Applications of Alfred Tarski’s Ideas in Database Theory	20
<i>Jan Van den Bussche</i>	
Locus Solum: From the Rules of Logic to the Logic of Rules	38
<i>Jean-Yves Girard</i>	

Contributed Papers

The Expressive Power of Horn Monadic Linear Logic	39
<i>Max Kanovich</i>	
Non-commutativity and MELL in the Calculus of Structures	54
<i>Alessio Guglielmi and Lutz Straßburger</i>	
Quadratic Correctness Criterion for Non-commutative Logic	69
<i>Virgile Mogbil</i>	

Descriptive Complexity

Capture Complexity by Partition	84
<i>Yijia Chen and Enshao Shen</i>	
An Existential Locality Theorem	99
<i>Martin Grohe and Stefan Wöhrle</i>	
Actual Arithmetic and Feasibility	115
<i>Jean-Yves Marion</i>	
The Natural Order-Generic Collapse for ω -Representable Databases over the Rational and the Real Ordered Group	130
<i>Nicole Schweikardt</i>	

Semantics

An Algebraic Foundation for Higraphs	145
<i>John Power and Konstantinos Tourlas</i>	
Semantic Characterisations of Second-Order Computability over the Real Numbers	160
<i>M. V. Korovina and O. V. Kudinov</i>	

An Abstract Look at Realizability	173
<i>Edmund Robinson and Giuseppe Rosolini</i>	

The Anatomy of Innocence	188
<i>Vincent Danos and Russell Harmer</i>	

Higher-Order Programs

An Improved Extensionality Criterion for Higher-Order Logic Programs ..	203
<i>Marc Bezem</i>	

A Logic for Abstract State Machines	217
<i>Robert F. Stärk and Stanislas Nanchen</i>	

Constrained Hyper Tableaux	232
<i>Jan van Eijck</i>	

Modal Logics

Modal Logic and the Two-Variable Fragment	247
<i>Carsten Lutz, Ulrike Sattler, and Frank Wolter</i>	

A Logic for Approximate First-Order Reasoning	262
<i>Frédéric Koriche</i>	

Inflationary Fixed Points in Modal Logic	277
<i>A. Dawar, E. Grädel, and S. Kreutzer</i>	

Categorical and Kripke Semantics for Constructive S4 Modal Logic	292
<i>Natasha Alechina, Michael Mendler, Valeria de Paiva, and Eike Ritter</i>	

Verification

Labelled Natural Deduction for Interval Logics	308
<i>Thomas Marthedal Rasmussen</i>	

Decidable Navigation Logics for Object Structures	324
<i>Frank S. de Boer and Rogier M. van Eijk</i>	

The Decidability of Model Checking Mobile Ambients	339
<i>Witold Charatonik and Jean-Marc Talbot</i>	

Automata

A Generalization of the Büchi-Elgot-Trakhtenbrot Theorem	355
<i>Matthias Galota, Heribert Vollmer</i>	

An Effective Extension of the Wagner Hierarchy to Blind Counter Automata	369
<i>Olivier Finkel</i>	

Decision Procedure for an Extension of WS1S	384
<i>Felix Klaedtke</i>	

Lambda-Calculus

Limiting Partial Combinatory Algebras towards Infinitary Lambda-Calculi and Classical Logic	399
<i>Yohji Akama</i>	

Intersection Logic	414
<i>Simona Ronchi Della Rocca and Luca Roversi</i>	

Life without the Terminal Type	429
<i>Lutz Schröder</i>	

Fully Complete Minimal PER Models for the Simply Typed λ -Calculus ...	443
<i>Samson Abramsky and Marina Lenisa</i>	

Induction

A Principle of Induction	458
<i>Keye Martin</i>	

On a Generalisation of Herbrand's Theorem	469
<i>Matthias Baaz and Georg Moser</i>	

Well-Founded Recursive Relations	484
<i>Jean Goubault-Larrecq</i>	

Equational Calculus

Stratified Context Unification Is in PSPACE	498
<i>Manfred Schmidt-Schauß</i>	

Uniform Derivation of Decision Procedures by Superposition	513
<i>Alessandro Armando, Silvio Ranise, and Michaël Rusinowitch</i>	

Complete Categorical Equational Deduction	528
<i>Grigore Roşu</i>	

Beyond Regularity: Equational Tree Automata for Associative and Commutative Theories	539
<i>Hitoshi Ohsaki</i>	

Constructive Theory of Types

Normalized Types 554
Pierre Courtieu

Markov’s Principle for Propositional Type Theory 570
Alexei Kopylov and Aleksey Nogin

Recursion for Higher-Order Encodings 585
Carsten Schürmann

Monotone Inductive and Coinductive Constructors of Rank 2 600
Ralph Matthes

Author Index 615

Computer Science Logic

15th International Workshop, CSL 2001. 10th Annual

Conference of the EACSL, Paris, France, September

10-13, 2001 Proceedings

Fribourg, L. (Ed.)

2001, XII, 628 p., Softcover

ISBN: 978-3-540-42554-0