

Table of Contents

Invited Speakers

Representing Arithmetic Constraints with Finite Automata: An Overview ...	1
<i>Bernard Boigelot and Pierre Wolper</i>	
Logic Databases on the Semantic Web: Challenges and Opportunities	20
<i>Stefan Decker</i>	

Conference Papers

An Abductive Approach for Analysing Event-Based Requirements Specifications	22
<i>Alessandra Russo, Rob Miller, Bashar Nuseibeh, and Jeff Kramer</i>	
Trailing Analysis for HAL	38
<i>Tom Schrijvers, Maria García de la Banda, and Bart Demoen</i>	
Access Control for Deductive Databases by Logic Programming	54
<i>Steve Barker</i>	
Reasoning about Actions with CHRs and Finite Domain Constraints	70
<i>Michael Thielscher</i>	
Using Hybrid Concurrent Constraint Programming to Model Dynamic Biological Systems	85
<i>Alexander Bockmayr and Arnaud Courtois</i>	
Efficient Real-Time Model Checking Using Tabled Logic Programming and Constraints	100
<i>G. Pemmasani, C. R. Ramakrishnan, and I. V. Ramakrishnan</i>	
Constraint-Based Infinite Model Checking and Tabulation for Stratified CLP	115
<i>Witold Charatonik, Supratik Mukhopadhyay, and Andreas Podelski</i>	
A Model Theoretic Semantics for Multi-level Secure Deductive Databases	130
<i>Hasan M. Jamil and Gillian Dobbie</i>	
Propagation Completeness of Reactive Constraints	148
<i>Michael J. Maher</i>	
On Enabling the WAM with Region Support	163
<i>Henning Makholm and Konstantinos Sagonas</i>	
A Different Look at Garbage Collection for the WAM	179
<i>Bart Demoen</i>	

Copying Garbage Collection for the WAM: To Mark or Not to Mark?	194
<i>Bart Demoen, Phuong-Lan Nguyen, and Ruben Vandeginste</i>	
Logical Algorithms	209
<i>Harald Ganzinger and David McAllester</i>	
Logical Loops	224
<i>Joachim Schimpf</i>	
Learning in Logic with RichProlog	239
<i>Eric Martin, Phuong Nguyen, Arun Sharma, and Frank Stephan</i>	
Towards a Declarative Query and Transformation Language for XML and Semistructured Data: Simulation Unification	255
<i>François Bry and Sebastian Schaffert</i>	
A Proof-Theoretic Foundation for Tabled Higher-Order Logic Programming	271
<i>Brigitte Pientka</i>	
Proving the Equivalence of CLP Programs	287
<i>Sorin Craciunescu</i>	
A Purely Logical Account of Sequentiality in Proof Search	302
<i>Paola Bruscoli</i>	
Disjunctive Explanations	317
<i>Katsumi Inoue and Chiaki Sakama</i>	
Reasoning with Infinite Stable Models II: Disjunctive Programs	333
<i>Piero A. Bonatti</i>	
Computing Stable Models: Worst-Case Performance Estimates	347
<i>Zbigniew Lonc and Mirosław Truszczyński</i>	
Towards Local Search for Answer Sets	363
<i>Yannis Dimopoulos and Andreas Sideris</i>	
A Rewriting Method for Well-Founded Semantics with Explicit Negation ..	378
<i>Pedro Cabalar</i>	
Embedding Defeasible Logic into Logic Programs	393
<i>Grigoris Antoniou and Michael J. Maher</i>	
A Polynomial Translation of Logic Programs with Nested Expressions into Disjunctive Logic Programs: Preliminary Report	405
<i>David Pearce, Vladimir Sarsakov, Torsten Schaub, Hans Tompits, and Stefan Woltran</i>	
Using Logic Programming to Detect Activities in Pervasive Healthcare	421
<i>Henrik Bærbak Christensen</i>	
Logic Programming for Software Engineering: A Second Chance	437
<i>Kung-Kiu Lau and Michel Vanden Bossche</i>	

A Logic-Based System for Application Integration	452
<i>Tamás Benkő, Péter Krauth, and Péter Szeredi</i>	

Conference Papers

The Limits of Horn Logic Programs	467
<i>Shilong Ma, Yuefei Sui, and Ke Xu</i>	
Multi-adjoint Logic Programming: A Neural Net Approach	468
<i>Jesús Medina, Enrique Mérida-Casermeyro, and Manuel Ojeda-Aciego</i>	
Fuzzy Prolog: A Simple General Implementation Using $\text{CLP}(\mathcal{R})$	469
<i>Claudio Vaucheret, Sergio Guadarrama, and Susana Muñoz</i>	
Automated Analysis of $\text{CLP}(\text{FD})$ Program Execution Traces	470
<i>Mireille Ducassé and Ludovic Langevine</i>	
Schema-Based Transformations of Logic Programs in λProlog	472
<i>Petr Olmer and Petr Štěpánek</i>	
Non-uniform Hypothesis in Deductive Databases with Uncertainty	473
<i>Yann Loyer and Umberto Straccia</i>	
Probabilistic Finite Domains: A Brief Overview	475
<i>Nicos Angelopoulos</i>	
Modelling Multi-agent Reactive Systems	476
<i>Prahladavaradan Sampath</i>	
Integrating Planning, Action Execution, Knowledge Updates and Plan Modifications via Logic Programming	477
<i>Hisashi Hayashi, Kenta Cho, and Akihiko Ohsuga</i>	
A Logic Program Characterization of Domain Reduction Approximations in Finite Domain CSPs	478
<i>Gérard Ferrand and Arnaud Lallouet</i>	
TCLP: Overloading, Subtyping and Parametric Polymorphism Made Practical for CLP	480
<i>Emmanuel Coquery and François Fages</i>	
Logical Grammars Based on Constraint Handling Rules	481
<i>Henning Christiansen</i>	
Debugging in A-Prolog: A Logical Approach	482
<i>Mauricio Osorio, Juan Antonio Navarro, and José Arrazola</i>	
Author Index	485