

Table of Contents

Invited Lecture: Improving Control of Logic Programs by Using Functional Logic Languages

<i>M. Hanus</i>	1
-----------------------	---

Parallelism

Independent AND-Parallel Implementation of Narrowing

<i>H. Kuchen, J.J. Moreno-Navarro, and M.V. Hermenegildo</i>	24
--	----

Binding Techniques and Garbage Collection for OR-Parallel CLP Systems

<i>M. Dorochevsky and A. Véron</i>	39
--	----

Static Analysis

Path Analysis for Lazy Data Structures

<i>C.K. Gomard and P. Sestoft</i>	54
---	----

Why the Occur-Check is Not a Problem

<i>K.R. Apt and A. Pellegrini</i>	69
---	----

Implementation I

Incremental Evaluation of Natural Semantics Specifications

<i>I. Attali, J. Chazarain, and S. Gilette</i>	87
--	----

Subsumption-Oriented Push-Down Automata

<i>F. Barthélemy and E. Villemonte de la Clergerie</i>	100
--	-----

Unlmp, Uniqueness as a Leitmotiv for Implementation

<i>S. Kahrs</i>	115
-----------------------	-----

Attribute Grammars

Using Cached Functions and Constructors for Incremental Attribute Evaluation

<i>M. Pennings, D. Swierstra, and H. Vogt</i>	130
---	-----

Strictness Analysis for Attribute Grammars

<i>M. Rosendahl</i>	145
---------------------------	-----

Checking and Debugging of Two-Level Grammars

<i>S. Saidi and J.-F. Boulicaut</i>	158
---	-----

Transformation/Synthesis

On Safe Folding

<i>A. Bossi, N. Cocco, and S. Etalle</i>	172
--	-----

Unfold/Fold Transformations Preserving Termination Properties

<i>T. Amtoft</i>	187
------------------------	-----

A Technique for Transforming Logic Programs by Fold-Unfold Transformations	202
<i>F. Alexandre</i>	
FOLON: An Environment for Declarative Construction of Logic Programs	217
<i>J. Henrard and B. Le Charlier</i>	
Implementation II	
A Complete Indexing Scheme for WAM-Based Abstract Machines	232
<i>W. Hans</i>	
Fast Prolog with a VAM _{1p} based Prolog Compiler	245
<i>A. Krall and T. Berger</i>	
Metastructures vs. Attributed Variables in the Context of Extensible Unification	260
<i>C. Holzbaur</i>	
Invited Lecture: Comparing the Galois Connection and Widening/Narrowing Approaches to Abstract Interpretation	269
<i>P. Cousot and R. Cousot</i>	
Abstract Interpretation	
Derivation of Linear Size Relations by Abstract Interpretation	296
<i>K. Verschaetse and D. De Schreye</i>	
Generic Abstract Interpretation Algorithms for Prolog: Two Optimization Techniques and Their Experimental Evaluation	311
<i>V. Englebert, B. Le Charlier, D. Roland, and P. Van Hentenryck</i>	
Implementation III	
A Bottom-Up Interpreter for a Higher-Order Logic Programming Language	326
<i>A. Hui Bon Hoa</i>	
CAMEL: An Extension of the Categorical Abstract Machine to Compile Functional/Logic Programs	341
<i>A. Mück</i>	
On the Interaction of Lazy Evaluation and Backtracking	355
<i>W. Hans, R. Loogen, and S. Winkler</i>	
Debugging	
Interprocedural Dynamic Slicing	370
<i>M. Kamkar, N. Shahmehri, and P. Fritzson</i>	
Algorithmic Debugging of Lazy Functional Languages	385
<i>H. Nilsson and P. Fritzson</i>	

A General Trace Query Mechanism Based on Prolog <i>M. Ducassé</i>	400
Integration	
Fully Declarative Logic Programming <i>J.A. Plaza</i>	415
Our LIPS Are Sealed: Interfacing Functional and Logic Programming Systems <i>G. Lindstrom, J. Małuszyński, and T. Ogi</i>	428
Analyses of Inconsistency for Incremental Equational Logic Programming <i>M. Alpuente, M. Falaschi, and F. Manzo</i>	443
I/O Trees and Interactive Lazy Functional Programming <i>S.A. Rebelsky</i>	458
System Demonstrations	
UCG-E: An Equational Logic Programming System <i>L.H. Hamel</i>	473
A Relational Programming System with Inferred Representations <i>D. Cattrall and C. Runciman</i>	475
An Implementation of Action Semantics (Summary) <i>H. Moura</i>	477
BinProlog: a Continuation Passing Style Prolog Engine <i>P. Tarau</i>	479
LaToKi: A Language Toolkit for Bottom-Up Evaluation of Functional Programs <i>P. Thiemann</i>	481
Implementing Higher-Order Functions in an Algebraic Specification Language with Narrowing <i>B. Reus</i>	483
Implementing Attribute Grammars by Computational Models <i>J. Vilo</i>	485
ProQuery: Logical Access to an OODB <i>C.M. Li and P.Y. Gloess</i>	487
Inference of Inheritance Relationships from Prolog Programs: a System Developed with PrologIII <i>C. Solnon and M. Rueher</i>	489
CLP($\mathcal{PB}$), A Meta-Interpreter in CLP($\mathcal{R}$) <i>P. Barth</i>	491