

Table of Contents

1. Invited Speakers

G. Huet: The Constructive Engine *

T. Reps and S. Horwitz: Semantics-Based Program Integration 1

2. Program Development and Verification

G. D. Gough and H. Barringer: A Semantics Driven Temporal Verification System 21

B. Krieg-Brückner: Algebraic Formalisation of Program Development by Transformation 34

Y. Takayama: QPC: QJ-based Proof Compiler - Simple Examples and Analysis - 49

3. Algebraic Specification and Type Concepts

N. W. P. van Diepen: Implementation of Modular Algebraic Specifications 64

R. Dietrich and F. Hagl: A Polymorphic Type System with Subtypes for Prolog 79

Y.-C. Fuh and P. Mishra: Type Inference with Subtypes 94

M. C. Gaudel and Th. Moineau: A Theory of Software Reusability 115

S. Kaes: Parametric Overloading in Polymorphic Programming Languages 131

M. Parigot: Programming with Proofs: A Second-Order Type Theory 145

4. Language Concepts

M. Bretz and J. Ebert: An Exception Handling Construct for Functional Languages 160

R. Heckmann: A Functional Language for the Specification of Complex Tree Transformations 175

S. M. Kaplan: Garp: Graph Abstractions for Concurrent Programming 191

R. Legrand: Extending Functional Programming Towards Relations 206

* Manuscript not received in time for publication

5. Implementation of Programming Languages

<i>A. Aiken and A. Nicolau: Perfect Pipelining: A New Loop Parallelization Technique</i>	221
<i>C. Conzel: New Insights into Partial Evaluation: The SCHISM Experiment</i>	236
<i>R. Giegerich and K. Schmal: Code Selection Techniques: Pattern Matching, Tree Parsing, and Inversion of Derivors</i>	247
<i>S. Horwitz: Adding Relational Query Facilities to Software Development Environments</i>	269
<i>D. Jacobs and A. Langen: Compilation of Logic Programs for Restricted And-Parallelism</i>	284
<i>A. Laville: Implementation of Lazy Pattern Matching Algorithms</i>	298
<i>A. Martelli and G. F. Rossi: Enhancing Prolog to Support Prolog Programming Environments</i>	317
<i>F. Nielson and H. R. Nielson: 2-Level-λ-Lifting</i>	328
<i>Ph. Wadler: Deforestation: Transforming Programs to Eliminate Trees</i>	344
<i>P. Weemeeuw, M. Bruynooghe and M. De Hondt: On Implementing Logic Programming Languages on a Dataflow Architecture</i>	359

6. Systems Exhibition	373
------------------------------	-----

Author Index	381
---------------------	-----