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Edited by Bill Wadge, University of Victoria

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# Table of Contents

**Introduction**  
Bill Wadge, General Chair

**Towards an Intensional Scientific Programming Methodology**  
Joey Paquet, John Plaice, University of Laval

**Predicting the Performance of the GLU System**  
Juan Ley, E. A. Ashcroft, Arizona State University

**Proof Procedures for Branching Time Logic Programs**  
M. Gergatsoulis (Democritos Institute), P. Rondogiannis (University of Ioannina), T. Panayiopoulos (University of Piraeus)

**The Specification and verification of Concurrent Systems with Chronolog**  
Chuchang Liu, Mehmet Orgun, Macquarrie University

**Intensional HTML**  
Bill Wadge, Taner Yildirim, University of Victoria

**A Thousand Papers for ISLIP 97**  
m c schraefel, University of Victoria

**Don't Shoot the Messenger - A Unified View of Senders and Receivers**  
Michael Levy, University of Victoria

**MQL - A Definition and Query Language for Multidimensional Databases**  
Weichang Du, University of New Brunswick

**Improved Dimensionality Analysis for Lucid**  
Gord Brown, University of Victoria
Introduction

I am very pleased to present here the contributed papers from the 1997 International Symposium on Languages for Intensional programming.

The 1997 ISLIP is the tenth in the series - the first ISLIP took place in 1987 at Arizona State University. This is also the second to be held at the University of Victoria - the first ISLIP here was in 1988.

Those of us who attended the first ISLIPs can appreciate how much progress has been made. Ten years ago we spent a lot of energy agonizing over just exactly what "Intensional Programming" might be. In those days the "L" in ISLIP stood for "Lucid", since that was the only well defined intensional language (that we knew about, at least). In the ten years that followed we (and some others as well) have developed intensional languages and systems for scientific programming, real time/reactive control, version control, logic programming, spreadsheets, attribute grammars, visual dataflow programming, distributed computation, hyper/multimedia ... and more. Some of these developments are still in the conceptual stage (i.e., half-baked), some have prototype/proof of principle implementations, others have become real products with real users. Some (like GLU, LUSTRE, SIGNAL and now Visual Java) have earned the highest praise our society can offer - they have made money!

On a more academic level, we have solved some of our hardest problems, including: how to add extra dimensions without making arbitrary a priori decisions about their relationships; how to intensionalize logic programming without losing the declarative reading; how to extend the Yahgi/Ostrum treatment of recursion to higher orders; how to prove this correct; how to combine inheritance and eludion.

The papers in this volume continue the work: solving theoretical problems (Gergatsoulis et al), finding new application areas (Du), producing practical tools (Paquet, Schraefel). And there are many many more possible worlds waiting to be discovered.

I'd like to thank all the authors and referees who made these papers possible. I'd like to thank our invited speakers - Stella Atkins, Tony Faustini, Bjorn Freeman-Benson and Hart Will - for telling us about their current work. I am also very grateful for the help of Peter Driessen and Monica Schraefel on the organizing committee, for the support of Dean Provan of Engineering, and the indispensable assistance of Pat McGuire of UVic Conference Management. Finally, I am happy to acknowledge financial support from Canadian NSERC, the UVic Faculty of Engineering, and Sun Microsystems.

Bill Wadge
ISLIP 97 General Chair