



ISLIP 90

The 1990 International Symposium
on
Lucid and Intensional Programming*

May 13 - 15, 1990
Ramada Inn, Kingston



Department of
Computing and Information Science

Queen's University at Kingston
Kingston, Ontario, Canada



ISLIP 90

The 1990 International Symposium
on
Lucid and Intensional Programming*

May 13 - 15, 1990
Ramada Inn, Kingston

* This workshop has been sponsored by; The Information Technology Research Centre, Ontario, and the Department of Computing and Information Science, Queen's University.

1. CONTENTS:

1. Table of Contents.....	2
2. The Symposium Series.....	3
3. Program of the 1990 Symposium.....	4
4. List of Participants.....	7
5. Copies of all Papers Presented..... <i>(in alphabetical order)</i>	11

2. THE SYMPOSIUM SERIES:

The 1990 International Symposium on Lucid and Intensional Programming will be the 3rd Annual Symposium of its kind. This symposium concerns itself with the dataflow language Lucid, and more generally, the use of intensional concepts in programming languages and systems. Topics include, the following:

- ◆ Models of Parallel Computation (Dataflow, Education, Streams).
- ◆ Architectures and Implementations.
- ◆ Semantics, Specification and Verification.
- ◆ Real-time Programming.
- ◆ Modal Logic and Intensionality.

PROGRAM COMMITTEE:

Janice Glasgow, Queen's University, - Chair

Edward A. Ashcroft, Arizona State University

Roger Lee, NASA/JPL

W.F. McColl, PRG

Prakash Panangaden, Queen's University

David Skillicorn, Queen's University

William Wadge, University of Victoria

Andrew Wendelborn, University of Adelaide

3. PROGRAM OF THE THIRD SYMPOSIUM:

Sunday, 13 May

6:00pm Wine and Cheese reception at the Ramada Inn, Sydenham Room

Monday 14 May

All Talks will be held in the Sydenham Room, Ramada Inn.

Session I: Chair Janice Glasgow

- 8:45 am Coffee/Tea
Opening remarks by J. Glasgow
- 9:00 am W. Wadge
University of Victoria, Canada
New Frontiers in Intensional Programming.
- 9:30 am M. Beynon, S. Russ, Y. Yung
University of Warwick, Coventry
Programming as Modelling: New Concepts and Techniques.
- 10:00 am Discussion
What is Intensional Programming ?
- 10:30 am Coffee Break
- 11:00 am J. Sanders and D. B. Skillicorn
Queen's University, Canada
Modal Logic and Lucid Specifications.
- 11:30 am J. Glasgow
Queen's University, Canada
An Operational View of a Logic for Time and Knowledge.
- 12:00 pm Discussion
Modal Logic and Intensionality!
- 12:30 pm Break for Lunch
Ollie's Restaurant, Ramada Inn

PROGRAM CONTINUED

Session II: Chair David Skillicorn

- 2:00 pm S. Matthews
University of Warwick, Coventry
A Fully Functional Description of Lucid.
- 2:30 pm R.A. Frost and W.C. Saba
University of Windsor, Canada
Towards a Calculus of Lazy Interpreters.
- 3:00 pm S. Tao
University of Victoria, Canada
Temporal Attribute Grammars and Incremental Evaluation.
- 3.30 pm Coffee Break
- 4:00 pm Discussion
Intensional Programming or Functional Programming?
- 6:30 pm Dinner
The General Wolfe Hotel
Wolfe Island.
Ferry departs from the dock at 6:00

Tuesday, 15 May

Session III: Chair Prakash Panangaden

- 9:00 am Invited Speaker
Eugene Stark
SUNY at Stonybrook, U.S.A.
Recent Advances in the Theory of Indeterminate Dataflow Networks.
- 10:00 am Coffee Break
- 10:30 am P. Kearney
Griffith University, Queensland
A Fully Abstract Functional Model for Real Time Systems.
- 11:00 am V. Shanbhogue
Cornell University, U.S.A.
The Relationship Between Multi-way and Two-way fair Merges.
- 11:30 am Discussion
Dataflow and Nondeterminism.
- 12:00 pm Break for Lunch
Ollie's Restaurant, Ramada Inn
- ISLIP 90

Session IV: Chair Tony Faustini

1:00 pm E. Ashcroft
Arizona State University, U.S.A.
Parallel Programming in Lucid.

1:30 pm E. Payan
INPG, France
*A New programming Method for
Highly Parallel Architecture.*

CONFERENCE CONCLUDES

4. LIST OF PARTICIPANTS:

(in alphabetical order)

Ed Ashcroft
Arizona State University
Dept. of Computer Science
Tempe, Az
5287-54056
ashcroft@vandalu.luc.asu.edu

Lise Bakker
Department of Computing and Information Science
Queen's University
Kingston, Ontario
K7L 3N6
bakker@qucis.queensu.ca

Meurig Beynon
U. of Warwick
c/o School of CS
Carleton University
Ottawa, Ontario
(613) 788-4337
fax (613) 788-4334

Eli Blevis
Department of Computing and Information Science
Queen's University
Kingston, Ontario
K7L 3N6
eli@qucis.queensu.ca

Weichang Du
U. of Victoria
Dept. of Computer Sci.
Victoria, BC V8W 2Y2
(604) 321-8768

Peter Farrett
Department of Computing Science
Queen's University
Kingston, Ontario
K7L 3N6
farrett@qucis.queensu.ca

Tony Faustini
Arizona State University
Dept. of Computer Science
Tempe, Az
5287-54056

Richard Frost
U. of Windsor
School of Computer Sci.
Windsor, Ontario
N9B 3P4
(519) 253-4232 ext. 2990

J. Glasgow
Queen's University
Department of Computing and Information Science
Kingston, Ontario
K7L 3N6
janice@qucis.queensu.ca

R. Jagannathan
SRI International
333 Ravenswood Ave.
Mailstop: BN-143
Menlo Park, CA
94025
(415) 859-2717
fax (415) 859-2844

Stephen Karamatos
U. of Windsor
School of Computer Sci.
Windsor, Ontario
N9B 3P4
(519) 253-4232

Peter Kearney
Griffith University
Kessels Rd.
Nathan, QLD 4111
Australia
(07) 875-5043
(07) 875-7656

Glenn MacEwen
Queen's University
Department of Computing and Information Science
Kingston, Ontario
K7L 3N6
macewen@qucis.queensu.ca

Steve Matthews
University of Warwick
Dept. of Computer Science
Coventry, UK CV4 7AL
Phone # +44 203 523252

Prakash Panangaden
Department of Computing and Information Science
Queen's University
Kingston, Ontario
K7L 3N6
prakash@qcis.queensu.ca

Eric Payan
Laboratoire de Genie Informatique
46 Ave. Felix Vialle
Grenoble Cedex France
76-57-45-00 (48-17)
fax - 76-57-47-54

Dimitris Phoukas
U. of Windsor
School of Computer Sci
Windsor, Ontario
N9B 3P4
(519) 253-4232

D. Hugh Redelmeier
29 Donino Ave.
Toronto, Ontario M4N 2W6
hugh@csri.toronto.edu
(416) 482-8253
hugh@redvax

A. Rosenbloom
Department of Computing and Information Science
Queen's University
Kingston, Ontario
K7L 3N6

Walid Saba
U. of Windsor
School of Computer Sci.
Windsor, Ontario
N9B 3P4
(519) 253-4232

Vasant Shanbhogue
Cornell University
58F Hasbrouck Apts.
Ithaca, NY 14850
(607) 257-5885

David Skillicorn
Department of Computing and Information Science
Queen's University
Kingston, Ontario
K7L 3N6
skill@qucis.queensu.ca

Eugene Stark
Department of computer Science
SUNY nat Stony Brook
Stony Brook, New York
11794-4400
USA
stark@sbc.suny.edu

John Stefanidis
U. of Windsor
School of Computer Science
Windsor, Ontario
N9B 3P4
519-253-4232 ext. 3003
fax 519-973-7068

Senhua Tao
U. of Victoria
Dept. of Comput. Sci.
Victoria, BC V8W 2Y2
(604) 721-8768

Robert Tennent
Department of Computing and Information Science
Queen's University
Kingston, Ontario
K7L 3N6
rdt@qucis.queensu.ca

Bill Wadge
U. of Victoria
Comput. Sci. Dept.
P.O. Box 1700
Victoria, BC
721-8659

Rick Workman
B.N.R.
Computing Research Lab
P.O. Box 3511
Station C
Ottawa, Ont. K1Y 4H7
(613) 763-3579
fax (613) 763-4222