MPC 2000

FIFTH INTERNATIONAL CONFERENCE ON

MATHEMATICS OF PROGRAM CONSTRUCTION

3–5th July 2000

Ponte de Lima, Portugal

`http://www.di.uminho.pt/mpc2000`

Conference Programme

Monday July 3 2000

8.50 - 9.00

Welcome

SESSION 1. Chair: *Roland Backhouse* (University of Nottingham)

9.00 - 10.00

Invited talk: *Integrating Programming, Properties, and Validation*
Mark Jones (Oregon Graduate Institute, USA)

10.00 - 10.30

Break

SESSION 2. Chair: *Johan Jeuring* (Utrecht University)

10.30 - 11.15

Polytypic values possess polykinded types
Ralf Hinze (Institute für Informatik III, Universität Bonn)

11.15 - 12.00

The Zip Calculus
Mark Tullsen (Department of Computer Science, Yale University)

12.00 - 14.00

Lunch

SESSION 3. Chair: *Lindsay Groves* (Victoria University of Wellington)

14.00 - 14.45

Separation and Reduction
Ernie Cohen (Telecordia Technologies)

14.45 - 15.30

Reasoning about Non-terminating Loops Using Deadline Commands
Ian Hayes (Dept. of Computer Science and Electrical Engineering, The University of Queensland, Brisbane)

15.30 - 16.00

Break

SESSION 4. Chair: *Christian Lengauer* (Universität Passau)

16.00 - 16.45

Quantum Programming
J. Sanders and *P. Zuliani* (PRG, Oxford University Computing Laboratory, Oxford)

16.45-17.30

"*Hot topic*" Session. Coordination: *Richard Bird* (Oxford University Computing Laboratory)

Tuesday July 4 2000

SESSION 5. Chair: *Lambert Meertens* (Kestrel Institute, USA)

9.00 - 10.00

Invited talk: *Regular Expressions Revisited: a Coinductive Approach to Streams, Automata, and Power Series*
Jan Rutten (CWI, The Netherlands)

10.00 - 10.30

Break

SESSION 6. Chair: *Bernhard Möller* (Universität Augsburg)

10.30 - 11.15

Proving pointer programs in Hoare Logic
Richard Bornat (Department of Computer Science, Queen Mary and Westfield College,University of London)

11.15 - 12.00

On Guarded Commands with Fair Choice
Emil Sekerinski (Department of Computing and Software, McMaster University, Hamilton, Ontario)

12.00 - 14.00

Lunch

Wednesday July 5 2000

SESSION 7. Chair: *J.N. Oliveira* (Universidade do Minho)

9.00 - 10.00

Invited talk: *Formal Methods and Dependability*
Cliff Jones (University of Newcastle, UK)

10.00 - 10.30

Break

SESSION 8. Chair: *Oege de Moor* (Oxford University Computing Laboratory)

10.30 - 11.15

Liberating Data Refinement
Eerke Boiten and *John Derrick* (Computing Laboratory, University of Kent, Canterbury)

11.15 - 12.00

Theorems about composition
Michel Charpentier (Computer Science Department, University of New Hampshire, Durham) and *K. Mani Chandy* (Computer Science Department, California Institute of Technology, Pasadena)

12.00 - 14.00

Lunch

SESSION 9. Chair: *Jeremy Gibbons* (Oxford University Computing Laboratory)

14.00 - 14.45

The Universal Resolving Algorithm: Inverse Computation in a Functional Language
Sergei Abramov (Program Systems Institute, Russian Academy of Sciences) and *Robert Glück* (Department of Information and Computer Science, Waseda University, Tokyo)

14.45 - 15.30

Metacomputation-based Compiler Architecture
William L. Harrison (Department of Computer Science, Indiana University, Bloomington) and *Samuel N. Kamin* (Department of Computer Science, University of Illinois, Urbana)

15.30 - 16.00

Break

SESSION 10. Chair: *Eugenio Moggi* (DISI, Univ. di Genova)

16.00 - 16.45

A Meta Language for Programming with Bound Names Modulo Renaming (Preliminary Report)
Andrew M. Pitts (Cambridge University Computer Laboratory, Cambridge) and *Murdoch J. Gabbay* (Department of Pure Mathematics and Mathematical Statistics, Cambridge University)

16.45-17.30

"*Hot topic*" Session. Coordination: *Richard Bird* (Oxford University Computing Laboratory)

17.30-

Closing session - End of MATHEMATICS OF PROGRAM CONSTRUCTION 2000