

# Contents

## Preface

*Ian R. East, Mark Green, David Duce, Jeremy Martin and Peter Welch* vii

## Programme Committee

viii

## Papers

Finitary Refinement Checks for Infinitary Specifications <i>A. W. Roscoe</i>	1
An Automatic Translation of CSP to Handel-C <i>J. D. Phillips and G. S. Stiles</i>	19
On Linear Time and Congruence in Channel-Passing Calculi <i>F. Peschanski</i>	39
Prioritised Service Architecture <i>I. R. East</i>	55
Debugging and Verification of Parallel Systems - the picoChip Way! <i>D. Towner, G. Panesar, A. Duller, A. Gray and W. Robbins</i>	71
Active Serial Port: A Component for JCSP.net Embedded Systems <i>S. Clayton and J. Kerridge</i>	85
The Transterpreter: A Transputer Interpreter <i>C. L. Jacobsen and M. C. Jadud</i>	99
Adding Mobility to Networked Channel-Types <i>M. Schweigler</i>	107
A Comparison of Three MPI Implementations <i>B. Vinter</i>	127
An Evaluation of Inter-Switch Connections <i>B. Vinter and H. H. Happe</i>	137
Observing Processes <i>A. E. Lawrence</i>	147

Triples	
<i>A. E. Lawrence</i>	157
<i>C++CSP</i> Networked	
<i>N. Brown</i>	185
Communicating Mobile Processes	
<i>F. R. M. Barnes and P. H. Welch</i>	201
Dynamic BSP: Towards a Flexible Approach to Parallel Computing over the Grid	
<i>J. M. R. Martin and A. V. Tiskin</i>	219
CSP: The Best Concurrent-System Description Language in the World – Probably!	
<i>M. Goldsmith</i>	227
<i>gCSP</i> : A Graphical Tool for Designing CSP Systems	
<i>D. S. Jovanovic, G. K. Liet and J. F. Broenink</i>	233
Towards a Semantics for Prioritized Alternation	
<i>I. R. East</i>	253
A Calculated Implementation of a Control System	
<i>A. A. McEwan</i>	265
Refining Industrial Scale Systems in <i>Circus</i>	
<i>M. Oliveira, A. Cavalcanti and J. Woodcock</i>	281
<i>K-CSP</i> : Component Based Development of Kernel Extensions	
<i>B. Spath and A. R. Allen</i>	311
Chaining Communications Algorithms with Process Networks	
<i>O. Faust, B. Spath, D. Endler and A. R. Allen</i>	325
Using CSP to Verify Aspects of an <i>occam</i> -to-FPGA Compiler	
<i>R. M. A. Peel and H. F. J. Wong</i>	339
Focussing on Traces to Link VCR and CSP	
<i>M. L. Smith</i>	353
Design of a Transputer Core and its Implementation in an FPGA	
<i>M. Tanaka, N. Fukuchi, Y. Ooki, and C. Fukunaga</i>	361
Derivation of Scalable Message-Passing Algorithms Using Parallel Combinatorial List Generator Functions	
<i>A. E. Abdallah and J. Hawkins</i>	373
Reconfigurable Hardware Synthesis of the IDEA Cryptographic Algorithm	
<i>A. E. Abdallah and I. W. Damaj</i>	387