



## **Communicating Process Architectures 2007**

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Editors: A.A. McEwan, S. Schneider, W. Ifill and P.H. Welch

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This publication deals with Computer Science and models of Concurrency. It particularly emphasises on hardware/software co-design, and the understanding of concurrency that results from these systems. A range of papers on this topic have been included, from the formal modeling of buses in co-design systems through to software simulation and development environments. The book includes a contribution by Professor Sir Tony Hoare (FRS), the founding father of the theoretical basis upon which much of the work in this series is based. He shares new thoughts on fine-grained concurrency. Another important contribution is by Professor David May (FRS) on his new architecture for massively multicore processors, its underlying programming model and applications. The editors trust you will find this publication informative and inspirational.

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#### **Part A. Invited Speakers**

- Fine-Grain Concurrency/ *C.A.R. Hoare*
- Communicating Process Architecture for Multicores/ *D. May*

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- Lazy Exploration and Checking of CSP Models with CSPsim/ *P.J. Brooke and R.F. Paige*
- The Core Language of Aldwych/ *M. Huntbach*
- JCSPProB: Implementing Integrated Formal Specifications in Concurrent Java/ *L. Yang and M.R. Poppleton*
- Components with Symbolic Transition Systems: A Java Implementation of Rendezvous/ *F. Fernandes, R. Passama and J.-C. Royer*
- Concurrent/Reactive System Design with Honeysuckle/ *I. East*
- CSP and Real-Time: Reality or Illusion?/ *B. Orlic and J.F. Broenink*
- Testing and Sampling Parallel Systems/ *J. Kerridge*
- Mobility in JCSP: New Mobile Channel and Mobile Process Models/ *K. Chalmers, J. Kerridge and I. Romdhani*
- C++CSP2: A Many-to-Many Threading Model for Multicore Architectures/ *N. Brown*

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- o PyCSP – Communicating Sequential Processes for Python/ *J.M. Bjørndalen, B. Vinter and O. Anshus*
- o A Process-Oriented Architecture for Complex System Modelling/ *C.G. Ritson and P.H. Welch*
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