

Preface

The thirty-first *Communicating Process Architectures Conference*, CPA 2008, organised under the auspices of WoTUG and the Department of Computer Science of the University of York, is being held in York, UK, 7-10 September 2008.

The York Department of Computer Science is delighted to host this conference again. The thirteenth *Occam User Group Technical Meeting* (from which these CPA conferences are descended) on “*Real-Time Systems with Transputers*” was held at this University in September, 1990. York has a long history of close contacts with this conference, from the early heady days when occam was new, to current collaborations with the University of Kent using occam- π for simulating complex systems. The satellite workshop “*Complex Systems Modelling and Simulation (CoSMoS)*”, arising from this collaboration, is part of this year's conference.

The city of York, one of Europe's most beautiful cities, combines evidence of a history going back to Roman times with a bustling modern city centre. York Minster, built on the foundations of the Roman city and an earlier Norman cathedral, is among the finest Gothic cathedrals, and dominates the city. Romans, Vikings, and more recent history are commemorated in a number of top-class museums, as well as being apparent in the architecture of the city.

We are delighted to have two excellent invited speakers, covering both theoretical aspects and industrial applications of Communicating Processes. Professor Samson Abramsky, FRS, is the *Christopher Strachey Professor of Computing* at the University of Oxford, where he leads the Theory and Automated Verification group. He has worked in the areas of semantics and logic of computation, and concurrency. His work on game semantics considers interaction and information flow between multiple agents and their environment. This has yielded new approaches to compositional model-checking and to analysis for programs with state, concurrency, probability and other features. Professor Colin O'Halloran is the head of the *Systems Assurance Group* at QinetiQ. He has been instrumental in the uptake of formal methods in the development and verification of high assurance systems on an industrial scale. His research interests are in automating the use of formal methods, and using these techniques at reasonable cost and on an industrial scale.

This conference and workshop were partially supported by AWE, EPSRC, Microsoft Research, and WoTUG. The editors would like to thank all the paper reviewers for the detailed feedback they provided the authors, the authors for their diligence in responding well to (sometimes harsh) criticism, the staff at the University of York – especially Bob French and Jenny Baldry – for the website and local arrangements – and, finally, to those individuals at the Universities of Kent and Tromsø – especially Carl Ritson, Neil Brown, John Markus Bjørndalen and Jon Simpson – without whom these Proceedings would not have made their press deadline!

Peter Welch (*University of Kent*), Susan Stepney (*University of York*),
Fiona Polack (*University of York*), Frederick Barnes (*University of Kent*),
Alistair McEwan (*University of Leicester*), Dyke Stiles (*Utah State University*),
Jan Broenink (*University of Twente*), Adam Sampson (*University of Kent*).