

# Preface

This volume contains the proceedings of CHARME 2001, the *Eleventh Advanced Research Working Conference on Correct Hardware Design and Verification Methods*. CHARME 2001 is the 11th in a series of working conferences devoted to the development and use of leading-edge formal techniques and tools for the design and verification of hardware and hardware-like systems.

Previous events in the ‘CHARME’ series were held in Bad Herrenalb (1999), Montreal (1997), Frankfurt (1995), Arles (1993), and Torino (1991). This series of meetings has been organized in cooperation with IFIP WG 10.5 and WG 10.2. Prior meetings, stretching back to the earliest days of formal hardware verification, were held under various names in Miami (1990), Leuven (1989), Glasgow (1988), Grenoble (1986), Edinburgh (1985), and Darmstadt (1984). The convention is now well-established whereby the European CHARME conference alternates with its biennial counterpart, the *International Conference on Formal Methods in Computer-Aided Design* (FMCAD), which is held on even-numbered years in the USA.

The conference took place during 4–7 September 2001 at the Institute for System Level Integration in Livingston, Scotland. It was co-hosted by the Institute and the Department of Computing Science of Glasgow University and co-sponsored by the IFIP TC10/WG10.5 Working Group on Design and Engineering of Electronic Systems. CHARME 2001 also included a scientific session and social program held jointly with the *14th International Conference on Theorem Proving in Higher Order Logics* (TPHOLs), which was co-located in nearby Edinburgh.

The CHARME 2001 scientific program comprised

- two **Invited Lectures**

- by Steven D. Johnson (joint with TPHOLs) presenting *View from the Fringe of the Fringe*, and
- by Alan Mycroft on *Hardware Synthesis Using SAFL and Application to Processor Design*,

as well as

- **Regular Sessions**, featuring 24 papers selected out of 56 submissions, ranging from foundational contributions to tool presentations,
- **Short Presentations**, featuring 8 short contributions accompanied by a poster presentation, and
- A morning of **Tutorials** aimed at industrial and academic interchange.

The conference, of course, also included informal tool demonstrations, not announced in the official program.

The paper *Applications of Hierarchical Verification in Model Checking*, by Robert Beers, Rajnish Ghughal, and Mark Aagaard, was presented at FMCAD

2000 but omitted inadvertently from the published proceedings of that conference. It is included in the present volume, since it contains appropriate content and the two conferences share a large common audience.

Warm thanks are due to the program committee and to all the referees for their assistance in selecting the papers, to Lorraine Fraser and to the ISLI Institute Director Steve Beaumont, to the TPHOLs organizers, and to the entire local organization team for their engaged and impressive effort on making the conference a smooth-running event.

The organizers are very grateful to Esterel Technologies, Intel, and Siemens ICN, whose sponsorship made a significant contribution to financing the event. Glasgow University provided financial support for publicity.

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Tiziana Margaria and Tom Melham

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