Foreword

Welcome to the 24th IEEE International Symposium on Computer Arithmetic, held in London, UK, from July 24th to July 26th, 2017. Since 1969, the ARITH symposia have served as the primary forum for presenting the latest research in computer arithmetic. The topics of the conference include number systems, algorithms for operations and mathematical functions, implementations, validation, hardware and software designs, and applications of computer arithmetic. At the ARITH symposia, authors from industry and academia present recent advances on all aspects of computer arithmetic and its applications or implementations.

Previous ARITH symposia have taken place in Santa Clara, California (2016), Lyon, France (2015), Austin, Texas (2013), Tübingen, Germany (2011), Portland, Oregon (2009), Montpellier, France (2007), Cape Cod, Massachusetts (2005), Santiago de Compostela, Spain (2003), Vail, Colorado (2001), Adelaide, Australia (1999), Asilomar, California (1997), Bath, UK (1995), Windsor, Ontario (1993), Grenoble, France (1991), Santa Monica, California (1989), Como, Italy (1987), Urbana, Illinois (1985), Aarhus, Denmark (1983), Ann Arbor, Michigan (1981), Santa Monica, California (1978), Dallas, Texas (1975), College Park, Maryland (1972), Minneapolis, Minnesota (1969). Since 1981, the ARITH symposia have been a biennial event. Starting in 2015, they are an annual event.

This year's technical program includes 22 papers with authors representing 11 countries. They are organized in 7 sessions which illustrate current hot topics in computer arithmetic: "*Multiprecision Arithmetic*", "*Algorithms*", "*Floating-Point Error Analysis*", "*Hardware for Fast and Reproducible Arithmetic*", "*Arithmetic in FPGAs*", "*Cryptography*", and "*Miscellaneous Topics in Computer Arithmetic*". These papers were selected out of 50 complete papers submitted to ARITH24. For each paper, at least three reviews were solicited. Most reviews were done by the 26 members of the Program Committee, and some were handled by external reviewers.

The technical program also includes two keynote talks: "*The rise of multiprecision arithmetic*" by N. Higham, and "*Large scale numerical simulations of the climate*" by J-C. Rioual, and two special sessions: "Matrix Algorithms", organized by Martin Langhammer, and "Computer Arithmetic and DSP", organized by George Constantinides.

The success of a symposium such as this depends on the participation of many individuals. First, we would like to thank all the authors who submitted their research results. We also thank t he keynote speakers, the special session speakers, and the session chairs for sharing with us their expertise. We would also like to express our gratitude to the members of the Program Committee and the external reviewers, who contributed so much of their time and provided in-depth reviews of the papers. We sincerely appreciate the direction provided by the members of the Steering Committee. Finally, we are grateful to Neil Burgess for his guidance and support as General Chair, to Michael Kennedy for his important work as Publicity Chair, and to David Thomas and Theo Drane for their outstanding efforts as Local Arrangements and Finance Chair, respectively.

Support for this year's symposium was provided by the IEEE, the IEEE Computer Society, the IEEE Computer Society Technical Committee on VLSI, ARM, Cadence, Intel, and Synopsys.

We hope that you will find this year's program a continuation of the previous ARITH meetings' tradition of excellence, and we wish you a very enjoyable conference.

Javier D. Bruguera and Florent de Dinechin
ARITH24 Program co-Chairs