Preface

Computability in Europe 2010

The papers in this special issue constitute a post-conference publication of the meeting *CiE 2010: Programs, Proofs, Processes*, held at Universidade dos Açores, Ponta Delgada, Portugal, between June 30 and July 4, 2010. CiE 2010 was the sixth in the series of conferences organized by the *Association for Computability in Europe*. The main aim of the association is to promote the development, particularly in Europe, of computability-related science, ranging over mathematics, computer science and applications in various natural and engineering sciences such as physics and biology. Its aims include the promotion of the study of philosophy and history of computing as it relates to questions of computability.

The theme of CiE 2010 was directed at the usual CiE synergy between computer science, mathematics and logic. The conference addressed not only the more established lines of research of computability and complexity theory and the interplay between proofs and computation, but also novel views that rely on physical and biological processes and models to find new ways of tackling computations and improving their efficiency. As is usual in computer science, CiE 2010 had a regular pre-proceedings volume published in the *Lecture Notes in Computer Science* as [2].

As a follow-up to the conference, the organizers of CiE 2010 have also prepared post-conference publications. Three special issues of journals were edited with journal versions of talks and presentations at CiE 2010. The CiE publications policy does not allow double publication of the same research content: in order to get accepted for a post-proceedings special issue, a journal version of a talk must exhibit unpublished research content beyond the content printed in the LNCS volume.

This special issue of the *Journal of Logic and Computation* is one of the post-conference publications. The papers published were pre-selected by the Programme Committee of CiE 2010 and underwent a thorough and strict refereeing process. This was the work of many referees who put in a lot of effort to judge the quality of the special issue. Four of the seven papers are journal versions of papers published in the mentioned LNCS volume: the paper *Haskell before Haskell. An alternative lesson in practical logics of the ENIAC* by De Mol, Carlé and Bullynck is an extended version of [1];

the paper *Hairpin Lengthening: Language Theoretic and Algorithmic Results* by Manea, Martín-Vide and Mitrana is an extended version of [4]; the paper *Counting the changes of random Δ_2^0 sets* by Figueira, Hirschfeldt, Miller, Ng and Nies is an extended version of [3]; Giancarlo Mauri was an invited speaker of the *Special Session on Biological Computing* (organized by Paola Bonizzoni and Shankara Krishna) and the paper *Recent complexity-theoretic results on P systems with active membranes* by Mauri, Leporati, Porreca and Zandron is a journal version of his invited talk of which an extended abstract was published as [5]. Edgar Daylight gave a talk at CiE 2010, but his paper *From Mathematical Logic to Programming-Language Semantics: a Discussion with Tony Hoare* in this special issue is separate from his presentation in Ponta Delgada. Liefke's paper *A single-type logic for natural language* corresponds to an informal presentation she gave at CiE 2010. Finally, the paper *A Tribute to Marian Boykan Pour-El (1928–2009)* by Pour-El and Zhong is a written version of a personal tribute by Ning Zhong to Marian Pour-El given on 1 July 2010 at CiE 2010.

References

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