PREFACE

The workshop *Continuity, Computability, Constructivity – From Logic to Algorithms (CCC 2012)* was held in Trier (Germany) from May 29 to June 2, 2012. It was the second in a series of workshops which are part of the EU project *Computable Analysis – theoretical and applied aspects (COMPUTAL)*. This special issue of *Logical Methods in Computer Science* contains nine selected contributions of workshop participants. The workshop as well as this special issue were dedicated to *Dieter Spreen*, the leader of the COMPUTAL project and founder of the CCC workshop series, to honour his numerous contributions to the field.

Dieter Spreen's pioneering work on effective topological spaces revealed the intimate connection between continuity and computability. His result on the continuity of total effective operations (*On effective topological spaces, The Journal of Symbolic Logic 63, 185–221, 1998*) is one of the most powerful generalization of the Kreisel-Lacombe-Shoenfield Theorem and constitutes, together with its partial counterparts, Rice's Theorem and the Rice-Shapiro Theorem, one of the pillars for research on topological aspects of computability with far reaching consequences in current research areas such as Domain Theory, Computable Analysis, Constructive Mathematics and Proof Theory. Dieter Spreen scientific contributions are complemented by his tireless and very successful activities to promote and foster these research areas and to support young researches. He organized many Dagstuhl seminars and initiated and led successful large EU network grant applications and projects with associated workshops, to give some examples.

The articles in this special issue cover a wide spectrum of research that is being carried out under the umbrella of the COMPUTAL project: Intuitionistic Logic (Hajime Ishihara), Algorithmic Randomness, Brownian Motion, Fourier Spectra (Willem Louw Fouché, Safari Mukeru and George Davie), Realizability, Higher-Type Functionals, Computable Analysis (Dag Normann), Domain Representations, Computable Analysis (Hideki Tsuiki and Yasuyuki Tsukamoto), Topology, Domain-theory, Functional Analysis (Klaus Keimel), Constructive Analysis (Douglas Bridges, James Dent, Maarten McKubre-Jordens), Infinitary Combinatorics, Proof Theory, Program Extraction (Josef Berger and Helmut Schwichtenberg), Co-analytic Sets, Quasi-Polish Spaces (Matthew de Brecht), Computable Solutions of Partial Differential Equations (Svetlana Selivanova and Victor Selivanov). All papers were refereed according to the usual standards of *Logical Methods in Computer Science.*

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CCC 2012 Guest Editors