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# Coalgebraic Methods in Computer Science

11th International Workshop, CMCS 2012  
Colocated with ETAPS 2012  
Tallinn, Estonia, March 31 – April 1, 2012  
Revised Selected Papers

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# Preface

This volume contains the post-proceedings of the 11th International Workshop on Coalgebraic Methods in Computer Science, CMCS 2012, held during March 31–April 1, 2012, in Tallinn, Estonia, as a satellite event of the Joint Conference on Theory and Practice of Software, ETAPS 2012. In more than a decade of research, it has been established that a wide variety of state-based dynamical systems, like transition systems, automata (including weighted and probabilistic variants), Markov chains, and game-based systems, can be treated uniformly as coalgebras. Coalgebra has developed into a field of its own, presenting a deep mathematical foundation, a growing field of applications, and interactions with various other fields such as reactive and interactive system theory, object-oriented and concurrent programming, formal system specification, modal and description logics, artificial intelligence, dynamical systems, control systems, category theory, algebra, analysis, etc. The aim of the CMCS workshop series is to bring together researchers with a common interest in the theory of coalgebras, their logics, and their applications. Previous workshops have been organized in Lisbon (1998), Amsterdam (1999), Berlin (2000), Genoa (2001), Grenoble (2002), Warsaw (2003), Barcelona (2004), Vienna (2006), Budapest (2008), and Paphos (2010). In 2004 CMCS became biennial, alternating with the International Conference on Algebra and Coalgebra in Computer Science (CALCO), which has been formed by the union of CMCS with the International Workshop on Algebraic Development Techniques (WADT). We received 23 submissions of contributed regular papers. Each submission was reviewed by three referees. The Program Committee decided to accept ten papers, making for an acceptance rate of just over 43%. Moreover, the volume includes papers accompanying the keynote talk by Samson Abramsky and two invited talks by Marcello Bonsangue and Pawel Sobocinski. Submission was handled via the EasyChair system. Informal proceedings were distributed at the conference; this volume contains revised versions of the papers following the discussion at the workshop. We wish to thank the Program Committee and the additional reviewers for their dedicated work, and Alexandra Silva for her excellent work as the CMCS Publicity Chair.

May 2012

Dirk Pattinson  
Lutz Schröder

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