

Preface

This volume contains the proceedings of the 16th International Conference on Relational and Algebraic Methods in Computer Science (RAMiCS 2017), which was held at ENS Lyon, France, during May 15–18, 2017.

The RAMiCS conferences aim to bring a community of researchers together to advance the development and dissemination of relation algebras, Kleene algebras, and similar algebraic formalisms. Topics covered range from mathematical foundations to applications as conceptual and methodological tools in computer science and beyond. More than 25 years after its foundation in 1991 in Warsaw, Poland—initially as “Relational Methods in Computer Science”—RAMiCS remains a main venue in this field. The series merged with the workshops on Applications of Kleene Algebra in 2003 and adopted its current name in 2009. Previous events were organized in Dagstuhl, Germany (1994), Paraty, Brazil (1995), Hammamet, Tunisia (1997), Warsaw, Poland (1998), Québec, Canada (2000), Oisterwijk, The Netherlands (2001), Malente, Germany (2003), St. Catharines, Canada (2005), Manchester, UK (2006), Frauenwörth, Germany (2008), Doha, Qatar (2009), Rotterdam, The Netherlands (2011), Cambridge, UK (2012), Marienstatt, Germany (2014), and Braga, Portugal (2015).

RAMiCS 2017 attracted 32 submissions, of which 17 were selected for presentation by the Program Committee. Each submission was evaluated according to high academic standards by at least three independent reviewers, and scrutinized further during two weeks of intense electronic discussion. The organizers are very grateful to all Program Committee members for this hard work, including the lively and constructive debates, to the external reviewers for their generous help and expert judgments, and especially to Wolfram Kahl, Martin E. Müller, and Michael Winter for shepherding three submissions towards acceptance. Without this dedication we could not have assembled such a high-quality program; we hope that all authors have benefitted from these efforts.

Apart from the submitted articles, this volume features the contributions of three invited speakers. The article on an “*Algebra for Quantitative Information Flow*” by Annabelle McIver and her co-authors presents a new model for reasoning about confidentiality in security applications. Jean-Éric Pin’s paper on the “*Dual Space of a Lattice as the Completion of a Pervin Space*” introduces Pervin spaces as useful tools for computing dual spaces of lattices, with applications in language theory. Alexandra Silva has contributed an abstract of her talk on “*A (Co)Algebraic Theory of Succinct Acceptors*.” We are delighted that all three invited speakers accepted our invitation to present their work at the conference.

Last, but not least, we would like to thank the members of the RAMiCS Steering Committee for their support and advice. We gratefully acknowledge financial support by the Laboratoire de l’Informatique du Parallélisme (LIP), the Ecole Normale Supérieure de Lyon (ENS de Lyon), and the Laboratoire d’excellence en mathématique et informatique fondamentale (Labex MILYON) of the University of Lyon; and

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