

## **Preface: Relations and Kleene Algebra in computer science**

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## Preface

This volume contains the proceedings of the 10th *International Seminar on Relational Methods in Computer Science* (RelMiCS 10) and the 5th *International Workshop on Applications of Kleene Algebra* (AKA 5). The joint conference took place in Frauenwörth on an Island in Lake Chiem in Bavaria, from April 7 to April 11, 2008. Its purpose was to bring together researchers from various subdisciplines of Computer Science, Mathematics and related fields who use the calculus of relations and/or Kleene algebra as methodological and conceptual tools in their work.

This conference is the joint continuation of two different strands of meetings. The seminars of the RelMiCS series were held in Schloss Dagstuhl (Germany) in January 1994, Parati (Brasil) in July 1995, Hammamet (Tunisia) in January 1997, Warsaw (Poland) in September 1998, Québec (Canada) in January 2000, and Oisterwijk (The Netherlands) in October 2001. The meeting on Applications of Kleene Algebra started as a workshop, also held in Schloss Dagstuhl, in February 2001. To join these two themes in one conference was mainly motivated by the substantial common interests and overlap of the two communities. Over the years this has led to fruitful interactions and opened new and interesting research directions. The joint series has been held in Malente (Germany) in May 2003, in St Catherines (Canada) in February 2005 and in Manchester (UK) in August/September 2006.

This volume contains 28 contributions by researchers from all over the world. Next to 26 regular papers there were the invited talks *Formal Methods and the Theory of Social Choice* by Marc Pauly (Stanford University, USA) and *Relations Making Their Way from Logics to Mathematics and Applied Sciences* by Gunther Schmidt (University of the Armed Forces Munich, Germany). The papers show that relational and Kleene Algebra methods have wide-ranging diversity and applicability in theory and practice.

In addition, for the second time, a PhD programme was offered. It included the invited tutorials *Basics of Relation Algebra* by Jules Desharnais (Université Laval, Quebec, Canada), *Basics of Modal Kleene Algebra* by Georg Struth (University of Sheffield, UK) and *Applications to Preference Systems* by Susanne Saminger (Universität Linz, Austria).

We are very grateful to the members of the Programme Committee and the external referees for their care and diligence in reviewing the submitted papers. We also want to thank Roland Glück, Peter Höfner Iris Kellner and Ulrike Pollakowski for their assistance; they made organizing this meeting a pleasant experience. We also gratefully appreciate the excellent facilities offered by the EasyChair conference administration system. Finally, we want to thank our sponsors ARIVA.DE AG (Kiel), CrossSoft (Kiel), HSH Nordbank AG (Kiel) and the Deutsche Forschungsgemeinschaft DFG for their financial support.

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