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Monika Heiner
Institute of Computer Science
Brandenburg University of Technology
Cottbus, Germany
E-mail: monika.heiner@informatik.tu-cottbus.de

Adelinde M. Uhrmacher
Institute of Computer Science
University of Rostock
Rostock, Germany
E-mail: adelinde.uhrmacher@uni-rostock.de

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Preface

This volume contains the proceedings of the 6th Conference on Computational Methods in Systems Biology (CMSB) held in October 2008 in Rostock/ Warnemünde.

The CMSB conference series was established in 2003 to promote the convergence of (1) modelers, physicists, mathematicians, and theoretical computer scientists from fields such as language design, concurrency theory, software verification, and (2) molecular biologists, physicians, neuroscientists joined by their interest in a systems-level understanding of cellular physiology and pathology. Since this time, the conference has taken place annually. The conference has been held in Italy, France, and the UK, and we were glad to host CMSB in Germany for the first time.

The summaries of the invited talks by Hidde de Jong, Jane Hillston, Koichi Takahashi, Nicolas Le Novere, and Dieter Oesterhelt are included at the beginning of the proceedings. The 21 regular papers cover theoretical or applied contributions that are motivated by a biological question focusing on modeling approaches, including process algebra, simulation approaches, analysis methods, in particular model checking and flux analysis, and case studies. They were selected out of more than 60 submissions by a careful reviewing process. Each paper received at least three reviews from members of the Program Committee consisting of 27 renowned scientists from seven countries. We would like to thank all members of the Program Committee and the referees for the thorough and insightful reviews and the constructive discussions. Due to the number of high-quality submissions, the decision on which papers to accept or reject was not easy. Therefore, we integrated a rebuttal phase for the first time. The authors also contributed to the reviewing process by swift and detailed responses to the reviewers' comments. For this and their submission of interesting and cutting-edge research papers to CMSB 2008, we would like to thank the authors. Also for the first time, five tutorials representing different modeling, simulation, and analysis tools for, and approaches toward, computational biology were part of the conference attesting to the achieved maturity of research.

We used the conference management system EasyChair, which proved invaluable in handling the electronic submission of papers, the entire reviewing process, including discussions and rebuttal phase, and finally, the generation of the proceedings. CMSB 2008 received financial support from the DFG (German Research Foundation) and Microsoft Research, Cambridge. The financial support from Microsoft Research was used to waive the fee for PhD students. For their support in the local organization and administration we would like to thank our local team: Anja Hampel, Jan Himmelspach, Sigrun Hoffmann, and Matthias Jeschke.

The conference venue was the Neptun hotel, located directly at the Baltic sea. Constructed in the beginning of the 1970s and conceived as a hallmark of the GDR, it shed its history and emerged as a modern conference center after the German reunification.

We wish all readers of this volume an enjoyable journey through the challenging field of computational methods in systems biology.

August 2008

Monika Heiner
Adelinde Uhrmacher

Organization

The organizers and Co-chairs of the CMSB 2008 conference were Monika Heiner of the Brandenburg University of Technology at Cottbus and Adelinde Uhrmacher of the University of Rostock.

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