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
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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# Table of Contents

Qualitative Modeling and Simulation of Bacterial Regulatory Networks  
*Hidde de Jong*  
1

Integrated Analysis from Abstract Stochastic Process Algebra Models  
*Jane Hillston, Federica Ciocchetta, Adam Duguid, and Stephen Gilmore*  
2

An Exact Brownian Dynamics Method for Cell Simulation  
*Koichi Takahashi*  
5

Multiscale Modelling of Neuronal Signalling  
*Nicolas Le Novère*  
7

Systems Biology of Halophilic Archaea  
*Dieter Oesterhelt*  
8

A Partial Granger Causality Approach to Explore Causal Networks Derived from Multi-parameter Data  
*Ritesh Krishna and Shuixia Guo*  
9

Functional Evolution of Ribozyme-Catalyzed Metabolisms in a Graph-Based Toy-Universe  
*Alexander Ullrich and Christoph Flamm*  
28

Component-Based Modelling of RNA Structure Folding  
*Carsten Maus*  
44

A Language for Biochemical Systems  
*Michael Pedersen and Gordon Plotkin*  
63

TheAttributed Pi Calculus  
*Mathias John, Cédric Lhoussaine, Joachim Niehren, and Adelinde M. Uhrmacher*  
83

The Continuous $\pi$-Calculus: A Process Algebra for Biochemical Modelling  
*Marek Kwiatkowski and Ian Stark*  
103

Automatic Complexity Analysis and Model Reduction of Nonlinear Biochemical Systems  
*Dirk Lebiedz, Dominik Skanda, and Marc Fein*  
123

Formal Analysis of Abnormal Excitation in Cardiac Tissue  
*Pei Ye, Radu Grosu, Scott A. Smolka, and Emilia Entcheva*  
141
<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Distribution of Mutational Effects on Fitness in a Simple Circadian Clock</td>
<td>156</td>
</tr>
<tr>
<td>Laurence Loewe and Jane Hillston</td>
<td></td>
</tr>
<tr>
<td>SED-ML – An XML Format for the Implementation of the MIASE Guidelines</td>
<td>176</td>
</tr>
<tr>
<td>Dagmar Köhn and Nicolas Le Novère</td>
<td></td>
</tr>
<tr>
<td>On Parallel Stochastic Simulation of Diffusive Systems</td>
<td>191</td>
</tr>
<tr>
<td>Lorenzo Dematte and Tommaso Mazza</td>
<td></td>
</tr>
<tr>
<td>Large-Scale Design Space Exploration of SSA</td>
<td>211</td>
</tr>
<tr>
<td>Matthias Jeschke and Roland Ewald</td>
<td></td>
</tr>
<tr>
<td>Statistical Model Checking in BioLab: Applications to the Automated Analysis of T-Cell Receptor Signaling Pathway</td>
<td>231</td>
</tr>
<tr>
<td>Edmund M. Clarke, James R. Faeder, Christopher J. Langmead, Leonard A. Harris, Sumit Kumar Jha, and Axel Legay</td>
<td></td>
</tr>
<tr>
<td>On a Continuous Degree of Satisfaction of Temporal Logic Formulae with Applications to Systems Biology</td>
<td>251</td>
</tr>
<tr>
<td>Aurélien Rizk, Grégory Batt, François Fages, and Sylvain Soliman</td>
<td></td>
</tr>
<tr>
<td>A Model Checking Approach to the Parameter Estimation of Biochemical Pathways</td>
<td>269</td>
</tr>
<tr>
<td>Robin Donaldson and David Gilbert</td>
<td></td>
</tr>
<tr>
<td>Compositional Definitions of Minimal Flows in Petri Nets</td>
<td>288</td>
</tr>
<tr>
<td>Michael Pedersen</td>
<td></td>
</tr>
<tr>
<td>On Inner and Outer Descriptions of the Steady-State Flux Cone of a Metabolic Network</td>
<td>308</td>
</tr>
<tr>
<td>Abdelhalim Larhlimi and Alexander Bockmayr</td>
<td></td>
</tr>
<tr>
<td>A Combinatorial Approach to Reconstruct Petri Nets from Experimental Data</td>
<td>328</td>
</tr>
<tr>
<td>Markus Durzinsky, Annegret Wagler, and Robert Weismantel</td>
<td></td>
</tr>
<tr>
<td>Analyzing a Discrete Model of Aplysia Central Pattern Generator</td>
<td>347</td>
</tr>
<tr>
<td>Ashish Tiwari and Carolyn Talcott</td>
<td></td>
</tr>
<tr>
<td>Stochastic Analysis of Amino Acid Substitution in Protein Synthesis</td>
<td>367</td>
</tr>
<tr>
<td>D. Bošnački, H.M.M. ten Eikelder, M.N. Steijaert, and E.P. de Vink</td>
<td></td>
</tr>
<tr>
<td>A Stochastic Single Cell Based Model of BrdU Measured Hematopoietic Stem Cell Kinetics</td>
<td>387</td>
</tr>
<tr>
<td>Richard C. van der Wath and Pietro Lio’</td>
<td></td>
</tr>
<tr>
<td>Erratum: Analyzing a Discrete Model of Aplysia Central Pattern Generator</td>
<td>E1</td>
</tr>
<tr>
<td>Ashish Tiwari and Carolyn Talcott</td>
<td></td>
</tr>
<tr>
<td>Author Index</td>
<td>403</td>
</tr>
</tbody>
</table>