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Simulation Science

First International Workshop, SimScience 2017
Göttingen, Germany, April 27–28, 2017
Revised Selected Papers

Springer

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Preface

Welcome to the proceedings of the first Clausthal–Göttingen International Workshop on Simulation Science, which took place in Göttingen, Germany, during April 27–28, 2017.

Owing to the rapid development of information and communication technology, the understanding of phenomena in areas such as natural sciences and engineering increasingly relies on computer simulations. Traditionally, simulation-based analysis and engineering techniques are a research focus of both TU Clausthal and the University of Göttingen, which is also reflected in their interdisciplinary joint research center "Simulation Science Center Clausthal–Göttingen." In this context, the first Clausthal–Göttingen International Workshop on Simulation Science brought together researchers and practitioners in order to report on the latest advances in simulation science. In particular, the workshop concentrated on (a) simulation and optimization in networks, (b) simulation of materials, and (c) distributed simulations.

The Convention Centre by the Observatory in Göttingen served as the workshop venue. It is an outbuilding of the Historical Observatory where the famous scholar Carl Friedrich Gauss used to work and live. The welcome address of the workshop was given by Prof. Norbert Lossau (Vice-President of the University of Göttingen) and Prof. Thomas Hanschke (President of the TU Clausthal). Recent results and an outlook to future developments in simulation science were discussed in three plenary talks given by Achim Streit (Karlsruhe Institute of Technology), Samuel Forest (MINES Paristech), and Kai Nagel (TU Berlin). The social program included a guided city tour through Göttingen's historical old town and a workshop dinner that took place in the basement of the city hall – the "Ratskeller" of Göttingen.

In total out of 40 submitted extended abstracts 39 were accepted for presentation at the workshop. After the workshop, 16 full-length papers of a subset of submissions have been accepted in a second review round for the post-proceedings.

We are very grateful to everyone who supported the workshop. In particular, we would like to thank the Technical Program Committee, the local arrangements co-chairs, Annette Kadziora and Fabian Sigges, and the finance chair, Alexander Herzog. The registration process was organized by VDE conference services and we highly appreciate the co-sponsoring by the Gesellschaft für Operations Research e.V. (GOR) and the Arbeitsgemeinschaft Simulation (ASIM).

After the success of this workshop, we look forward to the second Clausthal-Göttingen International Workshop on Simulation Science, which will take place in May 2019 in Clausthal, Germany.

April 2018

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Jens Grabowski
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