



# DAGSTUHL REPORTS

## Volume 12, Issue 10, October 2022

Computer Science Methods for Effective and Sustainable Simulation Studies (Dagstuhl Seminar 22401) <i>Wentong Cai, Christopher Carothers, David M. Nicol, and Adelinde M. Uhrmacher</i>	1
Foundations for a New Perspective of Understanding Programming (Dagstuhl Seminar 22402) <i>Madeline Endres, André Brechmann, Bonita Sharif, Westley Weimer, and Janet Siegmund</i>	61
Theory and Practice of SAT and Combinatorial Solving (Dagstuhl Seminar 22411) <i>Olaf Beyersdorff, Armin Biere, Vijay Ganesh, Jakob Nordström, and Andy Oertel</i>	84
Intelligent Security: Is “AI for Cybersecurity” a Blessing or a Curse (Dagstuhl Seminar 22412) <i>Nele Mentens, Stjepan Picek, and Ahmad-Reza Sadeghi</i>	106
Security of Decentralized Financial Technologies (Dagstuhl Seminar 22421) <i>Arthur Gervais and Marie Vasek</i>	129
Developmental Machine Learning: From Human Learning to Machines and Back (Dagstuhl Seminar 22422) <i>Pierre-Yves Oudeyer, James M. Rehg, Linda B. Smith, and Sho Tsuji</i>	143
Data-Driven Combinatorial Optimisation (Dagstuhl Seminar 22431) <i>Emma Frejinger, Andrea Lodi, Michele Lombardi, and Neil Yorke-Smith</i>	166
Towards a Unified Model of Scholarly Argumentation (Dagstuhl Seminar 22432) <i>Khalid Al-Khatib, Anita de Waard, Dayne Freitag, Iryna Gurevych, Yufang Hou, and Harrisen Scells</i>	175
Optimization at the Second Level (Dagstuhl Seminar 22441) <i>Luce Brotcorne, Christoph Buchheim, Dick den Hertog, and Dorothee Henke</i>	207
Toward Scientific Evidence Standards in Empirical Computer Science (Dagstuhl Seminar 22442) <i>Timothy Kluthe, Brett A. Becker, Christopher D. Hundhausen, Ciera Jaspán, Andreas Stefik, and Thomas Zimmerman</i>	225

## ISSN 2192-5283

### *Published online and open access by*

Schloss Dagstuhl – Leibniz-Zentrum für Informatik GmbH, Dagstuhl Publishing, Saarbrücken/Wadern, Germany. Online available at <https://www.dagstuhl.de/dagpub/2192-5283>

### *Publication date*

May, 2023

### *Bibliographic information published by the Deutsche Nationalbibliothek*

The Deutsche Nationalbibliothek lists this publication in the Deutsche Nationalbibliografie; detailed bibliographic data are available in the Internet at <https://dnb.d-nb.de>.

### *License*

This work is licensed under a Creative Commons Attribution 4.0 International license (CC BY 4.0).



In brief, this license authorizes each and everybody to share (to copy, distribute and transmit) the work under the following conditions, without impairing or restricting the authors' moral rights:

- Attribution: The work must be attributed to its authors.

The copyright is retained by the corresponding authors.

### *Aims and Scope*

The periodical *Dagstuhl Reports* documents the program and the results of Dagstuhl Seminars and Dagstuhl Perspectives Workshops.

In principal, for each Dagstuhl Seminar or Dagstuhl Perspectives Workshop a report is published that contains the following:

- an executive summary of the seminar program and the fundamental results,
- an overview of the talks given during the seminar (summarized as talk abstracts), and
- summaries from working groups (if applicable).

This basic framework can be extended by suitable contributions that are related to the program of the seminar, e. g. summaries from panel discussions or open problem sessions.

### *Editorial Board*

- Elisabeth André
- Franz Baader
- Daniel Cremers
- Goetz Graefe
- Reiner Hähnle
- Barbara Hammer
- Lynda Hardman
- Oliver Kohlbacher
- Steve Kremer
- Rupak Majumdar
- Heiko Mantel
- Albrecht Schmidt
- Wolfgang Schröder-Preikschat
- Raimund Seidel (*Editor-in-Chief*)
- Heike Wehrheim
- Verena Wolf
- Martina Zitterbart

### *Editorial Office*

Michael Wagner (*Managing Editor*)  
Michael Didas (*Managing Editor*)  
Jutka Gasiorowski (*Editorial Assistance*)  
Dagmar Glaser (*Editorial Assistance*)  
Thomas Schillo (*Technical Assistance*)

### *Contact*

Schloss Dagstuhl – Leibniz-Zentrum für Informatik  
Dagstuhl Reports, Editorial Office  
Oktavie-Allee, 66687 Wadern, Germany  
[reports@dagstuhl.de](mailto:reports@dagstuhl.de)

Digital Object Identifier: 10.4230/DagRep.12.10.i

<https://www.dagstuhl.de/dagrep>