

Call For Papers

ManComp 2022

7th Workshop on Managed Complexity

<https://wwwswt.informatik.uni-rostock.de/ManComp2022/>

In conjunction with **BIR 2022**

<https://bir2022.informatik.uni-rostock.de/>

Managing complexity has a long tradition for algorithms and general problems. However, it is an important issue also in Business Informatics domain. Here the complexity of different systems and systems of systems has to be managed. While complexity usually associates with large or very large-scale systems still managing complexity is important even for systems with small sizes operating in complex environment. Nowadays informatics requires handling complexity at different levels and configurations of social, physical, enterprise, software, and hardware systems. The workshop is planned *to focus on approaches and methods for managing complexity in the domain of applied informatics* that may concern interplay of systems and ecosystems of various sizes and substances. Its purpose is to share and transfer knowledge on complexity identification, representation, controlling and reduction as well as to exploit possible synergies in development of innovative complexity handling strategies, approaches, and methods.

The ultimate goal of the workshop is bringing together researchers and practitioners to discuss theoretical approaches or real-life case studies featuring success and/or failure stories in managing complexity. It welcomes seeking and discussing answers to such complexity management questions as:

- How is complexity divided?
- What kinds of models are to be specified?
- What is the role of system architecture in complexity handling?
- How is the human recognized in the loop?
- What kind of rules are to be applied?
- In which way do patterns help?
- Which notation or ontologies are useful in complexity handling?
- How is knowledge reused?
- How is knowledge propagated?
- and many others.

Based on these discussions, we expect to deepen the understanding of strategies, approaches, and methods in managing complexity in enterprise and software engineering. A cross-pollination of experiences in both domains is assumed.

Three types of submissions are welcomed: position papers, research papers, and reports. All types should treat a topic from the workshop themes.

- **Position papers** (2-6 pages): Such papers should state the position of the authors regarding any topic of the workshop.
- **Reports** (4-8 pages) Experience reports and case studies are expected to be submitted in this category.
- **Research papers** (8-15 pages full research papers, 8-10 pages research in progress): Research papers should describe innovative approaches.

Publication

Accepted papers will be published in the Workshop proceedings of the BIR 2022 conference (CEUR). Selected papers will be invited for extended versions in the journal "Complex Systems Informatics and Modeling Quarterly" <https://csimq-journals.rtu.lv/>.

Important Dates

Paper submission deadline ~~July 18~~ **July 29, 2022**

Author notification August 22, 2022

Camera-ready submission August 31, 2022

Submission

<https://easychair.org/my/conference?conf=bir20220>

Workshop topics include, but are not limited to:

- Measures of Complexity
- Agility in Complexity
- Models for handling complexity
- Tools for managing complexity
- Enterprise Architectures and Complexity
- Ontologies for managing complexity
- Patterns for managing complexity
- Capability impact on complexity management

Organizers and the chairs of PC

Peter Forbrig, University of Rostock, Germany

Marite Kirikova, Riga Technical University, Latvia

Charles Moller, Aalborg University, Denmark

Program Committee

Bertrand, David, Ecole Centrale de Lyon, France

Buchmann Robert Andrei, Babeş-Bolyai University of Cluj Napoca, Romania

Matthes Elstermann, Karlsruhe Institute of Technology, Germany

Peter Forbrig, University of Rostock, Germany

Janis Grundspenkis, Riga technical University, Latvia

Marite Kirikova, Riga Technical University, Latvia

Christian Märtin, Hochschule Augsburg, Germany

Charles, Møller, Aalborg University, Denmark

Werner Schmidt, Ingolstadt Business School, Germany

Khuram Shahzad, University of the Punjab, Pakistan

Chris Stary, University of Linz, Austria

Marco Winckler, Paul Sabatier University Toulouse, France

Jelena Zdravkovic, Stockholm University, Sweden

Iryna Zolotaryova,, Kharkiv National University of Economics, Ukraine

Contact

If further information is needed, please contact

- Marite Kirikova marite.kirikova@cs.rtu.lv
- Peter Forbrig peter.forbrig@uni-rostock.de
- Charles Møller charles@mp.aau.dk

References

- Cardoso, J., Mendling, J., Neumann, G., and Reijers, H. A.: A Discourse on Complexity of Process Models, Proc. Of Business Process Management Workshops, Vienna, Austria, September 4-7, Springer, LNCS, Volume 4103, pp. 117-128, 2006.
- Heitmeyer, C.: Managing complexity in software development with formally based tools - Electronic Notes in Theoretical Computer Science, Elsevier, 2004.
- Lindemann, U., Maurer, M., and Brau, T.: Structural Complexity Management: An Approach for the Field of Product Design, Springer, ISBN 978-3-540-87889-6, 2009.
- Little, T.: Context-Adaptive Agility: Managing Complexity and Uncertainty, IEEE Software, Vol. 22, Issue 3, pp. 28 – 35, 2005.
- Lloyd, S.: Measures of Complexity: A Nonexhaustive List, IEEE Control Systems Magazine, 21 (4), pp. 7-8, 2001.
- Saha, p. (Ed.): A Systemic Perspective to Managing Complexity with Enterprise Architecture (Advances in Business Information Systems and Analytics (Abis) IGI Global, 2013.
- Baeten J.C.M., van de Mortel-Fronczak J. M., Rooda J.E.: Integration of Supervisory Control Synthesis in Model-Based Systems Engineering, Complex Systems, Vol. 55 of the series Studies in Systems, Decision and Control, pp. 39-58, 2016.