

Call for Papers

ManComp 2021

6th Workshop on Managed Complexity

<http://wwwswt.informatik.uni-rostock.de/ManComp2021/>

September 22, 2021 Vienna, Austria

In conjunction with **BIR 2021** conference <https://bir2021.omilab.org/home>

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** (5-8 pages) Experience reports and case studies are expected to be submitted in this category.
- **Research papers** (max 15 pages full research papers, max 10 pages research in progress). Research papers should describe innovative approaches.

Publication

Workshop papers should be formatted following the Springer's LNCS formatting guidelines (see <http://www.springer.de/comp/lncs/authors.html>). Accepted Workshop papers will be published in CEUR proceedings of BIR DC and Workshops. Extended selected papers will be published the journal Complex Systems Informatics and Modeling (CSIMQ). <https://csimq-journals.rtu.lv/>

Important Dates

- July 22, 2021: Paper submission deadline
- August 22, 2021: Author notification
- August 31, 2021: Camera-ready submission
- September 22, 2021: Workshop date

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

Peter Forbrig, University of Rostock, Germany
Marite Kirikova, Riga Technical University, Latvia
Charles, Moller, Aalborg University, Denmark

Program Committee (changes are possible)

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Peter Forbrig, University of Rostock, Germany
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Jelena Zdravkovic, Stockholm University, Sweden
Iryna Zolotaryova,, Kharkiv National University of Economics, Ukraine

Website

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Contact

If further information is needed, please contact

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

References

- 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.
- 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.
- Marin, M. A., Lotriet, H., and Van Der Poll, J. A., Measuring Method Complexity of the Case Management Modeling and Notation (CMMN). In Proceedings of the Southern African Institute for Computer Scientist and Information Technologists Annual Conference 2014 on SAICSIT 2014 Empowered by Technology (SAICSIT '14), J. P. van Deventer, M. C. Matthee, H. Gelderblom, and A. Gerber (Eds.). ACM, New York, NY, USA, , Pages 209 , 8 pages. DOI=<http://dx.doi.org/10.1145/2664591.2664608>
- Saha, p. (Ed.): A Systemic Perspective to Managing Complexity with Enterprise Architecture (Advances in Business Information Systems and Analytics (Abis) IGI Global, 2013.