



Springer

Call for Papers

Editors

[Loli Burgueño](#)

lburguenoc@uoc.edu

Open University of Catalonia,
Spain

[Jordi Cabot](#)

jordi.cabot@icrea.cat

ICREA and Open University of
Catalonia, Spain

[Manuel Wimmer](#)

manuel.wimmer@jku.at

Johannes Kepler University Linz,
Austria

[Steffen Zschaler](#)

szschaler@acm.org

King's College London,
UK

Editors-in-Chief

[Jeff Gray](#)

University of Alabama

[Bernhard Rumpe](#)

RWTH Aachen University

Important Dates

Intent to submit 18 Dec 20

Paper submission 19 Mar 21

Notification 04 Jun 21

Software and Systems Modeling



Theme Issue:

AI-enhanced Model-Driven Engineering

Over the past years, we have witnessed a substantial rise of Artificial Intelligence (AI) successfully applied to different domains and, whether we are aware of it or not, impacting our daily lives through its presence in almost every device we use. More recently, AI is also starting to impact all aspects of the system and software development lifecycle, from upfront requirements elicitation to their specification, design, testing, deployment, operation and maintenance, with the main goal of helping engineers produce systems and software faster and with better quality while being able to handle the increasing complexity.

At the same time, Model-Driven Engineering (MDE), which aims to reduce the accidental complexity of system and software development as well as to make the intrinsic complexity of software-intensive systems more manageable, has proven to improve software development and is being used increasingly in the software industry.

The integration of AI components may increase the current benefits of MDE processes and tools, pushing the limits of “classic” MDE and providing software systems engineers with the right techniques to develop the next generation of highly complex model-based systems.

The [*Journal of Software and Systems Modeling*](#) (SoSyM) invites original, high-quality submissions for its theme issue on “AI-enhanced Model-Driven Engineering” focusing on topics related to the application of AI to enhance MDE processes and tools, including:

- AI planning applied to modelling, meta-modelling, and model management;
- AI-empowered model-based testing, validation and verification;
- Modeling assistants such as bots, chatbots and virtual recommenders supporting modeling tasks;
- (Semi-)automatic model inferencers and generators;
- Self-adapting model transformations and code generators;
- AI-based user interface adaptation for modeling tools;
- AI with human-in-the-loop for modeling;
- Semantic reasoning platforms over domain-specific models;
- Semantic integration of design-time models with runtime data;
- Perception AI and modeling;
- Data, process, and model mining and categorization;
- Integration of search-based approaches for modelling support and automatic modelling;

General Author Information

- Papers must be written in English in a scientifically rigorous manner with adequate references to related work.
- Submitted papers must not be simultaneously submitted (including in an extended form or in a shortened form) to other journals or conferences. It is however possible to submit extended versions of previously published work if less than 75% of the content already appeared in a non-journal publication, or less than 40% in a journal publication. Please see the [SoSyM Policy Statement on Plagiarism](#) for further conditions.
- Submitted papers do not need to adhere to a particular format or page limit but should be prepared using font “Times New Roman” with a font size no smaller than 11 pt, and with 1.5 line spacing. Please consult the [SoSyM author information for submitting papers](#).
- Each paper will be reviewed by at least three reviewers.

Making a submission

- Communicate your intent to submit a paper by emailing the theme issue editors (at ai-mde21@sosym.org) the following information before the Intent to Submit deadline: Title, Authors, and an Abstract.
- Possible submission formats are:
 - Word (.doc, without macros)
 - Rich Text Format (.rtf)
 - PostScript (.ps, special fonts must be embedded)
 - PDF (saved as readable in version 5.0 or earlier)
- Submit your work using the online submission system [manuscript central](#):
 - In step 1, select “Theme Section Paper” as the manuscript type.
 - In step 4, add “Loli Burgueño, Jordi Cabot, Manuel Wimmer and Steffen Zschaler” as editor. Please make sure that the “Recommended” radio button is checked and that you enter “Special Section Editors” into the “Reason” text box before pressing “Add Selected Editor(s)”.
 - In step 5, make sure the field “Cover Letter” includes the line: “Submission for Theme Issue on AI4MDE”.

Further information

If you have any questions or require additional information about this theme issue, please contact the editors at ai-mde21@sosym.org.