



Springer

Call for Papers

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Important Dates

Intent to submit 30 June 2023

Paper submission 01 Sep 2023

Notification 05 Feb 2024

Software and Systems Modeling



Theme Section:

Model Driven Engineering for Digital Twins

Digital Twins are virtual, digital representations of real-world systems or objects that are kept in sync with data from the real-world system and can be used for advanced analysis, predictive exploration, control, and (semi-) automated transformation of these systems and objects. Digital Twins promise tremendous potential in domains such as automotive, avionics, manufacturing, and medicine.

Digital Twins are based on models representing aspects of a real system. Whether the model is the basis of *what-if* simulation, or more sophisticated control and adaptation, Digital Twins present an interesting research challenge for the modeling community in terms of quality-based development and deployment. Digital Twin engineering is currently ad-hoc which is a challenge for quality-controlled development, deployment, and operation. Hence, MDE is crucial to leverage the potential of digital twins fully and systematically.

This Theme Section of SoSyM aims to provide a platform for Digital Twin researchers and practitioners to report emerging results, evidence of success and good practice, and to outline roadmaps to deliver high-quality Digital Twins using Model Driven Engineering.

The [Journal of Software and Systems Modeling](#) (SoSyM) invites original, high quality submissions for its Theme Section on *Model Driven Engineering for Digital Twins*. Articles describing any aspect of MDE applied to Digital Twins are in scope and we would particularly encourage submissions addressing:

- Applying proven results from model driven engineering of software systems to Digital Twin development.
- Building industry-scale Digital Twins.
- The integration of modeling with Digital Twin technologies such as: simulation, artificial intelligence, machine learning, control theory, human behavior (psychology and sociology), uncertainty.
- An MDE-based Digital Twin Syllabus.
- Digital Twins for DevOps.
- Case studies, research roadmaps, experience reports, and comparisons.

General Author Information

- Papers must be written in a scientifically rigorous manner with adequate references to related work.
- Submitted papers must not be simultaneously submitted 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.
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 section editors 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 5, make sure field “Cover Letter” includes the line: “Submission for Theme Section on Model Driven Engineering for Digital Twins”.

Further information

If you have any questions or require additional information about this theme section, please contact the editors.