



Springer

Call for Papers

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Important Dates

Intent to submit	15 Dec 2019
Paper submission	01 Apr 2020
Notification	01 Jul 2020

Software and Systems Modeling



Theme Issue: Multi-Level Modeling

Multi-level modeling (MLM) represents a significant extension to the traditional two-level object-oriented paradigm with the potential to dramatically improve upon the utility, reliability and complexity of models. Different from conventional approaches, multi-level models allow for an arbitrary number of classification levels and introduce other concepts that foster expressiveness, reuse and adaptability. A key aspect of the MLM paradigm is the use of entities that are simultaneously types and instances, a feature which has consequences for conceptual modeling, language engineering, model-based tooling, and consequently, for the development of model-based software systems.

Research into MLM has increased significantly over the last few years, manifesting itself in lively debates in the literature, six previously held international workshops (MULTI 2014 - 2019), a published journal theme issue (SoSyM), a special issue for the EMISA journal, a Dagstuhl Seminar (in 2017), and an increasing number [of tools and languages](#). Successful applications of MLM have been reported in domains such as software engineering, process modeling, enterprise modeling and industrial engineering. The objectives of this theme issue are to provide a primer resource that describes the state-of-the-art in MLM and to outline the future that addresses the key challenges in this area. This theme issue encourages submissions on new concepts, implementation approaches, formalisms, controversial positions, guidelines, and requirements for evaluation criteria. Contributions in the area of tool building, multi-level modeling applications, canonical examples and educational material are equally welcome.

The [Journal of Software and Systems Modeling](#) (SoSyM) invites original, high-quality submissions for its theme issue on “Multi-Level Modeling” focusing on topics related to MLM including (but are not restricted to):

- the nature of elements in a multi-level hierarchy and how to represent them,
- the importance and role of deep characterization mechanisms, including potency and its variants such a durability and mutability,
- the structure and labeling of an MLM framework,
- formal approaches to MLM,
- methods and techniques for discovering clabjects, specializations and classification relationships,
- specification of behavioral semantics in a multilevel setting,
- specification of multi-level constraints,
- experiences/challenges in providing tool support for MLM,

General Author Information

- experiences/challenges in applying MLM techniques to large problems,
- model management languages (transformation, code generation, validation etc.) in a multi-level setting,
- criteria and approaches for comparing MLM approaches,
- integration of multi-level modeling/programming languages,
- systematic evolution of multi-level models.

Making a submission

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- 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, 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.

Further information

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- Communicate your intent to submit a paper by emailing the theme issue 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 4, add “Adrian Rutle and Manuel Wimmer” 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 field “Cover Letter” includes the line: “Submission for Theme Issue on MLM”.

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