ICMT 2015

8th International Conference on Model Transformation

Co-located with STAF 2015, July 20-24 2015, L'Aquila (Italy)

Call for Papers

Modeling is a key element in reducing the complexity of software systems during their development and maintenance. Model transformations are essential for elevating models from documentation elements to first-class artifacts of the development process. Transformations also play a key role in analyzing models to reveal conceptual flaws or highlight quality bottlenecks and in integrating heterogeneous tools into unified tool chains.

Model transformation includes approaches such as: model-to-text transformation, e.g., to generate code or other textual artifacts from models; text-to-model transformations, e.g., to derive models from structured text such as legacy code; and model-to-model transformations, e.g., to normalize, weave, analyze, optimize, simulate, and refactor models, as well as to translate between modeling languages.

Model transformation encompasses a variety of technical spaces, including modelware, grammarware, dataware, and ontoware, a variety of model representations, e.g., based on different types of graphs, and a variety of transformation paradigms including rule-based transformations, term rewriting, and manipulations of objects in general-purpose programming languages.

The study of model transformation includes foundations, structuring mechanisms, and properties, such as modularity, composability, and parameterization of transformations, transformation languages, techniques, and tools. An important goal of the field is the development of high-level model transformation languages, providing transformations that are amenable to higher-order model transformations or tailored to specific transformation problems.

The efficient execution of model queries and transformations by scalable transformation engines on top of large graph data structures is also a key challenge in different application scenarios. Novel algorithms as well as innovative (e.g., distributed) execution strategies and domain-specific optimizations are sought in this respect.

To achieve impact on software engineering in general, methodologies and tools are required to integrate model transformation into existing development environments and processes. ICMT is the premier forum for researchers and practitioners from all areas of model transformation.

Topics

Topics of interest include, but are not limited to:

- Transformation paradigms and languages
  - graph rewriting, tree rewriting, attribute grammars
  - rule-based, declarative, imperative, and functional
  - textual, graphical
  - model queries, pattern matching
  - transformation by example/demonstration
  - modularity, reusability, and composition
  - comparison of transformation languages
  - theoretical foundations
- Transformation algorithms and strategies
  - bidirectional transformation
  - incremental transformation
  - scalability and optimization
  - higher-order transformation
  - transformation chains
  - non-functional aspects of transformations
- Development of transformations
  - specification,
  - verification and validation (incl. testing, debugging, termination, confluence, metrics)
  - evolution
  - development processes
  - tool support
  - benchmarking of transformation engines
- Applications and case studies
  - refactoring
  - aspect weaving
  - model comparison, differencing, and merging
  - model synchronization and change propagation
  - co-evolution of models, metamodels, and transformations
  - round-trip/reverse/forward engineering
  - industrial experience reports
  - empirical studies

Submission Guidelines

All contributions will be subject to a rigorous selection process by the international Program Committee, with an emphasis on originality, practicality and overall quality. Papers should clearly indicate their contributions with respect to previous work. Each paper will be reviewed by at least 3 committee members. All submissions should follow the LNCS format, be in PDF, and should include the authors' names, affiliations and contact details. In 2015, ICMT is introducing a mentoring scheme through which prospective submitters can obtain early advice on the suitability, structure, and content of their papers. The submission web site is:
https://easychair.org/conferences/?conf=icmt2015

In the **general call**, four types of submissions are sought:

- Research papers: Up to 15 pages long.
- Application papers: Up to 15 pages long.
- Exploratory papers: Up to 10 pages long.
- Tool demonstration papers: Up to 7 pages long.

Research papers should describe novel and scientifically rigorous contributions to the model transformation field. Papers should clearly discuss how the results were validated.
Application papers should report on applications of model-transformation technology and should carefully identify and discuss important lessons learnt. Of special interest are experience papers that report on industrial applications of model transformation.
Exploratory papers should describe new, unconventional approaches related to the topics of interest of ICMT. Papers in this category should describe well-defined research ideas that fundamentally challenge established research directions and the current state of practice, but which are at an early stage of investigation and may not be fully evaluated yet.
Tool demonstration papers should describe novel and state-of-the-art tools or report on novel features of existing tools, related to model transformation. Submissions should consist of two parts. The first part, no more than 7 pages, should describe the tool presented (please include the URL of the tool if available). This part will be included in the proceedings. The second part, no more than 5 pages, should explain how the demonstration will be carried out, including screen dumps and examples. This part will not be included in the proceedings, but will be evaluated.
The conference proceedings will be published in the Springer Lecture Notes in Computer Science series. Moreover, we intend to publish a special journal issue with a selection of the best papers from the conference.

In 2015, ICMT is introducing a **mentoring scheme** through which prospective submitters can obtain early advice on the suitability, structure, and content of their papers. Through this scheme, senior members of the community (mentors) will provide authors with early feedback to help them align their submissions with the objectives and standards of ICMT. Please note that the mentoring scheme is only available for submissions led by an author who has not been involved in an ICMT publication in the past, and that the mentoring scheme will not interfere with the reviewing process (i.e., papers that have participated in the mentoring scheme will still be reviewed by three committee members in the reviewing phase) .

Important Dates

Mentoring Scheme

Draft Submission	December 15th, 2014
Feedback	January 23rd, 2015

General Call

Abstract Submission	February 15th, 2015
Paper Submission	February 22nd, 2015
Notification of acceptance	March 22nd, 2015
Camera-ready version	April 22nd, 2015
Conference dates	July 20th-24th, 2015

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http://www.disim.univaq.it/staf2015/