



# ICMT 2019

12<sup>th</sup> International Conference on Model Transformation  
July 15-19, Eindhoven, The Netherlands, STAF 2019

Model transformations are a core technology underlying the use of modeling and Domain Specific Languages (DSLs). Especially in DSL development, model transformations enable a decoupling of abstract and concrete syntax(es), supporting reuse and the coexistence of multiple concrete syntaxes (visual, textual) for the same DSL. 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.

Ending the twenty-twenties, model transformations are facing two major questions: On the one hand, a main emerging purpose of model transformations in industry is addressing the continuous evolution of industry standards. For example, automotive companies updating from one to the next AUTOSAR version face huge investments and insecurities, due to the need to update their models. Model transformations build the core of most state-of-the-art technologies for such evolution attempts. However, industry is still hesitant to trust these approaches. Thus, the first main question is:

*How can we ensure that model transformations produce expected results that foster the trust in and use of transformations for co-evolution?*

On the other hand, recent studies indicate that modern modeling languages do not substantially differ from standard programming languages with regards to usability, productivity, and maintainability. This leads to the second main question:

*Is it time to re-think the design of model transformation languages? What are new innovative language designs, e.g., allowing non-expert users to intuitively specify and validate model transformations?*

Topics of interest include, but are not limited to:

- **Transformation Lifecycle:**
  - Development of transformations: specification, verification and validation, testing, debugging
  - Evolution and maintenance of transformations: modularity, reusability, and composition
  - Tool support
  - Non-functional aspects of transformations, e.g. usability
- **Transformation Applications:**
  - Co-evolution, synchronization, and change propagation
  - Round-trip/reverse/forward engineering
  - Model refactoring, aspect weaving
  - Model comparison, differencing, and merging
  - Transformation in interplay with other fields, e.g., compiler construction and compiler verification
- **Empirical Studies**, such as case studies, experiments (e.g. comparisons of transformation languages), benchmarks, industrial experience reports
- **New transformation paradigms and language designs:**
  - Theoretical foundations
  - Transformation algorithms and strategies (bidirectionality, incrementality, scalability)
  - Higher-order transformation and transformation chains
  - Model queries and pattern matching
  - Transformation by example/demonstration

We invite papers in the following categories:

- **Research and experience papers** (up to 15 pages + up to 2 pages for references = in total up to 17 pages). Papers in this category should describe novel and scientifically rigorous contributions to the model transformation field (for research papers), introduce novel models transformation tools, or report on applications of model-transformation technology, and identify and discuss important lessons learnt (for application papers). Of special interest are experience papers that report on industrial applications of model transformation.
- **Short papers** (up to 5 pages + up to 2 pages for references = in total up to 7 pages). Papers in this category should describe new, unconventional approaches that fundamentally challenge established research directions and the current state of practice, but which are at an early stage of investigation (exploratory papers).
- **Tool demonstration papers** (up to 7 pages + up to 2 pages for references = in total up to 9 pages). Papers in this category should present novel tools or novel features of state-of-the-art model transformation tools. Supplementary information, which will not be published but may be used in the review, may be provided alongside the submission. For tool papers, such supplementary

## **Important Dates:**

*Abstract submission:*  
08th of March

*Full paper submission:*  
15th of March

*Notification:*  
19th of April

*Camera ready:*  
10th of May

## **PC Co-Chairs:**

Regina Hebig, Sweden  
Anthony Anjorin, Germany

## **Website:**

<http://www.model-transformation.org/>

## **Submission Link:**

<https://easychair.org/conferences/?conf=icmt20190>

**Publication:** All accepted papers will be published as gold open-access journal publication in The Journal of Object Technology (<http://www.jot.fm/>). At least one author for each accepted paper must register before the early registration deadline and present the paper during the conference.