The effective and efficient use of conceptual modelling languages and methods presupposes the availability of corresponding modelling tools. Modelling tools represent a class of software systems aimed at supporting modellers in constructing, documenting and maintaining conceptual (meta) models and, at the same time, at fostering integrity of models. Particularly with regard to domain-specific modelling (DSM) approaches, the development of graphical modelling tools has gained importance to support model-based analyses and to realise a model-driven software development cycle. The design, implementation and evaluation of modelling tools raises particular software engineering and modelling challenges pertaining, for instance, to model and diagram management, consistency and syntax checking, synchronous and asynchronous collaborative modelling, inter-tool diagram exchange, and model version control. Users of modelling tools are faced by particular challenges resulting, for instance, from partly subtle interdependencies between modelling tool, its meta modelling environment, and the specification as well as application of modelling languages.

This Special Issue is dedicated to capturing the current state-of-the-art in the area of modelling tool research with a focus on methodical development of modelling tools. We strongly encourage submissions that go beyond 'yet another modelling tool' and invite submissions that address research challenges and direct further research. It is expected that the submissions are based on sound methodical, theoretical, conceptual-analytical and, where appropriate, hermeneutic and/or behaviouristic approaches (e.g. case study-based research). Submissions may not have been submitted or be under consideration elsewhere and must constitute original work. It is possible to submit a major revision of a manuscript already published in workshop or conference proceedings given that the earlier publication is properly referenced. In addition, it must be clearly described and/or marked which parts of the manuscript have been revised and of what nature the changes are.

Topics of interests to this Special Issue include, but are not limited to:

- Software development methods dedicated to the development of modelling tools,
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- Systems architectures and architecture modelling for modelling tools with special focus on domain-specific modelling languages,
- Automated modelling tool generation and corresponding theoretical, technical and practical challenges,
- Interdependencies between modelling tool, its meta modelling environment, and the specification of modelling languages,
- Approaches to bridge the gap between modelling languages and implementation languages,
- Modelling tools for collaborative modelling and solutions to corresponding software development challenges,
- Design patterns and rules with respect to modelling tool development,
- Economic analysis of modelling tools and their development, especially under consideration of free and open source software frameworks and platforms,
- Challenges in modelling tool development and potential solution candidates (e.g., layout algorithms, model versioning, distributed modelling, tool usability),
- Evaluation and critical review of modelling tools, their architectures, underlying frameworks and platforms,
- Introduction and use of modelling tools in organizations.

Experience reports and case studies on modelling tool development, evaluation, and use in practical applications are encouraged as well.

Important dates:

2012-04-16: Optional submission of an extended abstract (max. 4 pages; motivation of research, research method, related work, key results) via e-mail to one of the editors of the special issue.
2012-06-04: Deadline for submission of manuscripts.

Instructions for authors including guidelines for manuscript preparation are available at [http://wi-mobis.gi-ev.de > Journal > Guidelines for Authors](http://wi-mobis.gi-ev.de). Authors are asked for electronic submissions via the submission management system available at [http://www.wi-inf.duisburg-essen.de/ojs/](http://www.wi-inf.duisburg-essen.de/ojs/). In case of multiple authors, it is required to name one author who uploads the submission. The submission should include a cover page with the paper's title and the names, affiliations and e-mail addresses of all authors. The first page of the paper starts with the title and does not carry the authors’ names. Submissions must be completely anonymous (including document metadata). Submitted manuscripts are accepted either in MS-Word or PDF format. A LaTeX template is available, the use of which is strongly recommended. Submissions should not exceed 7,000 words. Additional material, e.g., representations of extensive models, may be included as addendum. In addition to the paper, an abstract (around 150 words) has to be provided. Submitted papers will be reviewed within no more than two months. The review process is double blind. Authors who submit a manuscript guarantee that it has not been published elsewhere, nor is intended to be published elsewhere. Papers that were accepted for publication must be written according to the style defined for the journal. Please keep in mind that the journal Enterprise Modelling and Information Systems Architectures uses British English.