ICGT 2017

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10th International Conference on Graph Transformation (ICGT 2017)

Part of STAF 2017

Aims and Scope

Dynamic structures are a major cause for complexity when it comes to model and reason about systems. They occur in software architectures, models, pointer structures, databases, networks, etc. As collections of interrelated elements, which may be added, removed, or change state, they form a fundamental modelling paradigm as well as a means to formalise and analyse systems. Applications include architectural reconfigurations, model transformations, refactoring, and evolution of a wide range of artefacts, where change can happen either at design time or at run time.

Based on the observation that these structures can be represented as graphs and their modifications as graph transformations, theory and applications of graphs, graph grammars and graph transformation systems have been studied in our community for more than 40 years. The conference aims at fostering interaction within this community as well as attracting researchers from other areas, either in contributing to the theory of graph transformation or by applying graph transformation to established or novel areas.

The 10th International Conference on Graph Transformation (ICGT 2017) will be held in Marburg, Germany, as part of STAF 2017 (Software Technologies: Applications and Foundations). Proceedings will be published by Springer in the Lecture Notes in Computer Science (LNCS) series, and a special issue has been confirmed with the Journal of Logic and Algebraic Methods in Programming (Elsevier).

Topics of interest include (but are not limited to):

- General models of graph transformation (e.g., high-level, adhesive, node, edge, and hyperedge replacement systems)
- Analysis and verification of graph transformation systems
- Graph theoretical properties of graph languages
• Automata on graphs and parsing of graph languages
• Logical aspects of graph transformation
• Computational models based on graph transformation
• Structuring and modularization of graph transformation
• Hierarchical graphs and decompositions of graphs
• Parallel, concurrent, and distributed graph transformation
• Term graph rewriting
• Graph transformation and Petri nets
• Model-driven development and model transformation
• Model checking, program verification, simulation and animation
• Syntax, semantics and implementation of programming languages, domain-specific languages, and visual languages
• Graph transformation languages and tool support
• Efficient algorithms (pattern matching, graph traversal, etc.)
• Applications and case studies of graph transformation in software engineering, including software architectures, refactoring, business processes, access control and service-orientation
• Application to computing paradigms such as bio-inspired, quantum, ubiquitous, and visual computing

Organization

Program chairs

- Detlef Plump (University of York, UK)
- Juan de Lara (Universidad Autonoma de Madrid, Spain)

Program committee

- Anthony Anjorin (University of Paderborn, Germany)
- Paolo Baldan (University of Padova, Italy)
- Gabor Bergmann (Budapest University of Technology and Economics, Hungary)
- Paolo Bottoni (Sapienza University of Rome, Italy)
- Andrea Corradini (University of Pisa, Italy)
- Juergen Dingel (Queen's University, Canada)
- Rachid Echahed (CNRS, Laboratoire LIG, France)
- Maribel Fernandez (King's College London, UK)
- Holger Giese (Hasso Plattner Institute, University of Potsdam, Germany)
- Joel Greenyer (Leibniz University of Hannover, Germany)
- Annegret Habel (University of Oldenburg, Germany)
- Reiko Heckel (University of Leicester, UK)
- Berthold Hoffmann (University of Bremen, Germany)
- Dirk Janssens (University of Antwerp, Belgium)
- Barbara König (University of Duisburg-Essen, Germany)
- Leen Lambers (Hasso Plattner Institute, University of Potsdam, Germany)
- Yngve Lamo (Bergen University College, Norway)
- Mark Minas (Universitat der Bundeswehr Munchen, Germany)
- Mohamed Mosbah (LaBRI, University of Bordeaux, France)
- Fernando Orejas (Technical University of Catalonia, Spain)
- Francesco Parisi-Presicce (Sapienza University of Rome, Italy)
- Arend Rensink (University of Twente, The Netherlands)
- Leila Ribeiro (University Federal do Rio Grande do Sul, Brazil)
- Andy Schurr (Technical University of Darmstadt, Germany)
- Uwe Wolter (University of Bergen, Norway)
- Albert Zundorf (University of Kassel, Germany)

Contact

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Event Details

- **Location:** Marburg, Germany
- **URL:** https://sites.google.com/site/gratra2017

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