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Graph Transformation

First International Conference, ICGT 2002
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Preface

ICGT 2002 was the first International Conference on Graph Transformation following a series of six international workshops on graph grammars with applications in computer science, held in Bad Honnef (1978), Osnabrück (1982), Warrenton (1986), Bremen (1990), Williamsburg (1994), and Paderborn (1998). ICGT 2002 was held in Barcelona (Spain), October 7–12, 2002 under the auspices of the European Association of Theoretical Computer Science (EATCS), the European Association of Software Science and Technology (EASST), and the IFIP Working Group 1.3, Foundations of Systems Specification.

The scope of the conference concerned graphical structures of various kinds (like graphs, diagrams, visual sentences and others) that are useful to describe complex structures and systems in a direct and intuitive way. These structures are often augmented by formalisms which add to the static description a further dimension, allowing for the modeling of the evolution of systems via all kinds of transformations of such graphical structures. The field of Graph Transformation is concerned with the theory, applications, and implementation issues of such formalisms.

The theory is strongly related to areas such as graph theory and graph algorithms, formal language and parsing theory, the theory of concurrent and distributed systems, formal specification and verification, logic, and semantics. The application areas include all those fields of Computer Science, Information Processing, Engineering, and the Natural Sciences where static and dynamic modeling by graphical structures and graph transformations, respectively, play an important role. In many of these areas tools based on graph transformation technology have been implemented and used.

The proceedings of ICGT 2002 consist of two parts. The first part comprises the extended abstracts of the invited talks followed by the contributed papers (in alphabetic order). The topics of the papers range over a wide spectrum, including graph theory and graph algorithms, theoretic and semantic aspects, modeling, applications, and tool issues. The second part contains a tutorial introduction to graph transformation from a software engineering point of view, and short presentations of the satellite events of ICGT 2002.

We would like to thank the members of the program committee and the secondary reviewers for their enormous help in the selection process. We are also grateful to Peter Knirsch and Sabine Kuske for their technical support in running the conference system and in editing the proceedings. Moreover, we would like to express our gratitude to the local organizers Nikos Mylonakis, Fernando Orejas (Chair), Elvira Pino, and Gabriel Valiente who did a great job. Finally, we would like to acknowledge the helpful use of the START conference system and the always excellent cooperation with Springer-Verlag, the publisher of the Lecture Notes in Computer Science.

August 2002

Andrea Corradini, Hartmut Ehrig
Hans-Jörg Kreowski, Grzegorz Rozenberg

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