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Graph Computation Models
Selected Revised Papers from the
Third International Workshop on
Graph Computation Models (GCM 2010)

Preface

1 pages

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Preface

Graphs are common mathematical structures which are visual and intuitive. They constitute a natural and seamless way for system modeling in several areas of science including computer science, life sciences, business processes, etc. Graph computation models (GCM) constitute a class of very high level models where graphs are first-class citizens. They, thus, generalize classical computation models based on strings (e.g., Chomsky's grammars) or on trees (e.g., term rewrite systems). Their mathematical foundations, in addition to their visual feature, contribute to facilitate specification, validation and analysis of complex systems. A variety of computation models has been developed yet using graphs and rule-based graph transformations. These models include features for programming languages and systems, paradigms for software development, concurrent calculi, local computations and distributed algorithms, biological or chemical computations, etc.

This issue of Electronic Communications of the EASST includes seven extended articles which have been selected out from the proceedings of the Third International Workshop on Graph Computation Models (GCM 2010). All submissions were subject to a careful and standard international journal peer-reviewing process. The topics of the different articles range over a wide spectrum, including theoretical aspects of graph transformations, proof methods, semantics as well as application issues of graph computation models.

We would like to thank all the reviewers for their hard work which contributed substantially to ensure the high quality of this issue. We also thank the different authors as well as the EASST staff for their contributions and help in preparing this issue.

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