This special issue of Fundamenta Informaticae consists of a selection of papers presented at the workshop organized by the ESPRIT Basic Research Working Group COMPUGRAPH II. It took place in Noordwijkerhout, Holland, from 3 to 6 October 1993.

The ESPRIT Basic Research Working Group "Computing by Graph Transformation" (COMPUGRAPH) began in March 1989, and its second phase (COMPUGRAPH II) began in October 1992. The main aim of the COMPUGRAPH project is to demonstrate the potential of graph transformations as a uniform framework for the development of modern software systems. The research activities therefore cover the whole spectrum from theoretical investigations to practical software engineering applications.

The main sessions of the workshop were: Foundations, Concurrency, and Specification and Programming. They reflect the main research streams of the COMPUGRAPH project. There were also presentations from the ESPRIT Basic Research Action SEMAGRAPH which cooperates with COMPUGRAPH.

There were 28 papers presented during the workshop. Selected papers of more fundamental nature were chosen for a possible presentation in this special issue. The papers went through an independent refereeing process which resulted in the papers presented in this issue. We are indebted to the referees for their help in the selection process.

We thank all the authors for their cooperation in preparing this issue.

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Guest Editors