

Introduction

Research in the area of efficient algorithms and data structures is increasingly concerned with implementation and implementation-related problems. Many projects are underway to develop program libraries or software systems for combinatorial computing in areas such as graph and network algorithms, combinatorics, combinatorial optimization, computational geometry, and distributed and parallel computing. The goal of these projects is to make new theoretical results available for direct practical application in software production, teaching and research.

In August 1993 we organized the workshop “ALGORITHMS: Implementation, Libraries, and Use” at the International Conference and Research Center for Computer Science at Schloss Dagstuhl, sponsored by the ESPRIT Project ALCOM II (Basic Research Action 7141). The goal of the workshop was to present and discuss implementation-related problems and techniques, to demonstrate current software systems, and to identify common research interests in this field. This special issue presents five papers deemed representative of the theme of the workshop out of 15 presented in Dagstuhl.

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