Proceedings of the Third Imperial College Workshop

ADVANCES IN THEORY AND FORMAL METHODS OF COMPUTING

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Preface

This volume is the proceedings of the third workshop of the Theory and Formal Methods Section of the Department of Computing, Imperial College, London. The papers are contributions from members, ex-members and visitors of the Section.

As the variety of work in these pages shows, the interests of the Section encompass many areas in theoretical computer science, ranging from formal specification and verification of programs through denotational and operational semantics to rarefied areas such as computational measure theory. The aim of our work is to improve both the theory and practice of the design of programs and programming languages; to facilitate efficient implementation of correct programs; to increase understanding and enable fruitful exploitation of computing paradigms such as concurrency or object orientation; and to allow the smooth incorporation of advanced features such as exact real number arithmetic into computation, always with an emphasis on mathematically rigorous development.

Topics addressed by papers in this collection include Formal Specification, Theorem Proving, Concurrency, Operational and Denotational Semantics, Real Number Computation, Abstract Interpretation, Computational Measure Theory and Neural Networks.

The workshop was held at Christ Church, Oxford, between the 1st and 3rd of April 1996. Since the workshop, all the papers have been refereed and revised.

Abbas Edalat
Sofia Jourdan
Guy McCusker
July 1996, Imperial College, London.

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