

EDITORIAL PREFACE

Special Issue on Theory and Applications of Models of Computation TAMC 2022

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Optimization theory and algorithms play an important role in computer science, mathematics, and electronic engineering and have been developed into a new discipline. Many branches listed as linear programming, integer programming, nonlinear programming, geometric programming, dynamic programming, and stochastic programming are included in this field. This special issue is mainly dedicated to exploring the development and applications of frontier theories of optimization theory and algorithms, gathering high-level young scholars and experts in the field of optimization, and publishing their significant works.

Seven participants of the 17th Annual Conference on Theory and Applications of Models of Computation (TAMC 2022) working in the area were cordially invited to submit consolidated papers to this special issue. Following a rigorous review process, 6 papers were accepted for publication, covering a variety of topics that can be summarized into two broad problem classes in operations research: discrete and continuous optimization. There are 3 papers on discrete optimization, involving submodular, cover, and cut problems. There are 3 papers on continuous optimization, employing techniques such as alternating direction method of multipliers, UTVPI constraint systems, and algebraic L -domains approach.

As guest editors, we sincerely hope that the readers will like the contributions of this special issue, and we would be delighted if it stimulates and strengthens their interest in learning and doing research in optimization theory and algorithms. All papers invited for the special issue have received rigorous reviews by high-level experts in the field, and we would like to thank all reviewers for their constructive comments. Finally, we thank all authors who have shown interest and made important contributions to this special issue.

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