

Preface

As it relates to the essential property of robots, the motion of mechanisms, kinematics is the most fundamental aspect of robot design, analysis and control. The series of books on *Advances in Robot Kinematics* reports the latest achievements in this field. The first book in the series was published in 1991. Then, since 1994, these books have been published every 2 years, with the publication of each one being followed by a symposium in which the participants exchange their results and opinions. Books on *Advances in Robot Kinematics* have always been warmly accepted by experts and represent an important and ongoing information about what is happening in this area.

This book is the 12th in the series. All the articles contained within it have been selected on the basis of a peer-review process and describe the newest and most original achievements in the field of robot kinematics. We would like to emphasise that the whole process, from the submission of manuscripts, the reviewing, the selection of the articles, the various revisions, the preparation of the finished articles and the publication of the book, has taken less than 6 months.

Today, robot kinematics still presents an immense number of research challenges and the symposia on *Advances in Robot Kinematics* manage to bring together the best of the world's researchers and scientists. Since 1992 the symposia have come under the patronage of the International Federation for the Promotion of Mechanism and Machine Science—IFToMM.

The last symposium related with this book was organised by the J. Stefan Institute in Ljubljana, Slovenia. The 56 articles in this book cover the latest topics in the kinematics of robotic systems. We are grateful to the authors for their contributions and to the large team of reviewers for their critical and insightful recommendations. We are also indebted to Dr. Tadej Petrič from the J. Stefan Institute for his valuable technical contribution, and to the staff of Springer who were responsible for putting the whole book together.

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