# Optimization and Optimal Control

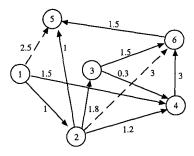
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# Optimization and Optimal Control



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 $\begin{array}{c} \textit{In memory of a dear teacher and friend} \\ \textit{Oleg V. Vasiliev} \end{array}$ 

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#### Preface

Numerous mathematical models in many diverse fields of science and engineering lead to the formulation of optimization or optimal control problems. In optimization we often solve problems in finite dimensional spaces. On the other hand, in optimal control problems we often deal with infinite dimensional spaces where the solution is described by a curve instead of a finite vector. Optimization and optimal control has flourished in the last half century. In this book we cover a small subset of recent important topics in optimization and optimal control with emphasis on recent theoretical developments and applications.

An international conference on Optimization and Optimal Control was held during August 13-17, 2002 at Ulaanbaatar, Mongolia. The conference was endorsed by France Télécom R&D, the Mongolian Mathematical Society, the Mongolian Academy of Sciences, the Mongolian State University, DAAD and the Center for Applied Optimization at the University of Florida. The conference provided a forum for researchers working on different aspects of optimization and optimal control to present their recent discoveries, and to initiate scientific collaborations. This volume contains a selective collection of carefully refereed papers based on talks presented at this conference. The two themes of optimization and optimal control pervade this book.

The target audience of the book includes graduate students in engineering and operations research, academic researchers, as well as practitioners, who use optimization and optimal control methods for their specific needs and applications.

We would like to take this opportunity to thank the sponsors, the authors of the papers, the anonymous referees, and World Scientific, for making the publication of this book possible.

P.M. Pardalos, I. Tseveendorj, and R. Enkhbat June 2003 This page is intentionally left blank

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