

Preface

There has been much recent progress in stochastic optimization problems from both a theoretical and a practical perspective. Stochastic programming is the study of practical procedures for decision making under the presence of uncertainties and risks. Stochastic programming approaches have been successfully used in a number of areas such as energy and production planning, telecommunications, forest and fishery harvest management, engineering, and transportation. Recently, it was realized that the practical experience gained in stochastic programming can be expanded to a much larger spectrum of applications including financial modeling, asset-liability management, bond portfolio management, currency modeling, risk control, and probabilistic risk analysis. This volume is focused on recent advances in theory and implementation issues of stochastic programming algorithms, software, and applications. Major topics covered in this volume include:

- (1) advances in theory and implementation of stochastic programming algorithms;
- (2) sensitivity analysis of stochastic systems;
- (3) stochastic programming applications and other related topics.

A conference on *Stochastic Optimization: Algorithms and Applications* was held during February 20–22, 2000 at the Center for Applied Optimization of the University of Florida. The conference was opened with a special day devoted to the work of Roger J-B. Wets and his collaborators, to pay tribute to his important contributions to the field. The conference provided a forum for researchers working on different aspects of stochastic optimization to present their recent results, and to interact with people working on industrial applications of stochastic programming. In addition, the conference provided a foundation for joint research cooperation and stimulation for future research. The conference was endorsed by the INFORMS society and was partially supported by the National Science Foundation, the College of Engineering of the University of Florida, IBM, and Algorithmics, Inc.

This volume contains a selective collection of refereed papers based on talks presented at this conference. We would like to take the opportunity to thank the sponsors, the authors of the papers, the anonymous

referees, and Kluwer Academic Publishers for making the conference successful and the publication of this beautiful volume possible.

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