

# Preface

This is the second issue of selected papers presented at the conference (organized by C. A. Floudas and P. M. Pardalos) on 'Recent Advances in Global Optimization' held at Princeton University, May 10–11, 1991. The conference presented research in global optimization and related applications in science and engineering. All of the talks were invited and the papers were refereed. The papers of this issue cover a wide spectrum of approaches in global optimization.

The paper by Kamath and Karmarkar describes interior point techniques for computing bounds for bivalent quadratic problems. Phillips, Rosen, and van Vliet present a parallel stochastic algorithm for solving constrained global optimization problems. In addition, the authors present extensive computational experience. In the next paper by Kearfott, an interval branch and bound algorithm is presented for solving bound constrained optimization problems. Computational results are also presented. The final paper, by D. Shalloway, deals with the global minimization of molecular conformation energy functions. A new global optimization approach is presented in which the Gibbs distribution of the objective function is deterministically annealed by tracing the evolution of a multiple-Gaussian packet approximation. In addition, computational results are presented.

We would like to take this opportunity to again thank the anonymous referees, Air Force Office of Scientific Research, Penn State University, and Princeton University for their help and support of the conference.

The other papers of this conference were published in Volume 2, No. 1 of this journal.

CHRIS A. FLOUDAS  
PANOS M. PARDALOS