

Preface

This issue contains selected papers presented at the conference (organized by C. A. Floudas and P. M. Pardalos) on “State of the Art in Global Optimization: Computational Methods and Applications” held at Princeton University, April 28–30, 1995. The conference presented current research in global optimization and related applications in science and engineering. All of the talks were invited and the papers refereed.

The papers of this issue cover a wide spectrum of approaches in global optimization. Hägglöf *et al.* present techniques of Gröbner bases for computing global minima to polynomial optimization problems. Lamar incorporates generalized capacity improvement procedures in a branch and bound algorithm to solve fixed-charge and quadratic concave minimization problems. Maranas and Floudas present an algorithm for solving nonlinearly constrained systems of equations by global optimization techniques. The paper by Ratz and Csendes investigates the influence of the interval subdivision selection rule on the convergence of interval branch-and-bound algorithms for global optimization. In the paper by Tuy *et al.*, a dc optimization method is discussed for solving single facility location problems with general attraction and repulsion functions.

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