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Nota di contenuto	Session 1 -- Robust Branch-and-Cut-and-Price for the Capacitated Vehicle Routing Problem -- Metric Inequalities and the Network Loading Problem -- Valid Inequalities Based on Simple Mixed-Integer Sets -- Session 2 -- The Price of Anarchy when Costs Are Non-separable and Asymmetric -- Computational Complexity, Fairness, and the Price of Anarchy of the Maximum Latency Problem -- Polynomial Time Algorithm for Determining Optimal Strategies in Cyclic Games --

Session 3 -- A Robust Optimization Approach to Supply Chain Management -- Hedging Uncertainty: Approximation Algorithms for Stochastic Optimization Problems -- Scheduling an Industrial Production Facility -- Session 4 -- Three Min-Max Theorems Concerning Cyclic Orders of Strong Digraphs -- A TDI Description of Restricted 2-Matching Polytopes -- Enumerating Minimal Dcuts and Strongly Connected Subgraphs and Related Geometric Problems -- Session 5 -- Semi-continuous Cuts for Mixed-Integer Programming -- Combinatorial Benders' Cuts -- A Faster Exact Separation Algorithm for Blossom Inequalities -- Session 6 -- LP-based Approximation Algorithms for Capacitated Facility Location -- A Multi-exchange Local Search Algorithm for the Capacitated Facility Location Problem -- Separable Concave Optimization Approximately Equals Piecewise Linear Optimization -- Session 7 -- Three Kinds of Integer Programming Algorithms Based on Barvinok's Rational Functions -- The Path-Packing Structure of Graphs -- More on a Binary-Encoded Coloring Formulation -- Session 8 -- Single Machine Scheduling with Precedence Constraints -- The Constrained Minimum Weighted Sum of Job Completion Times Problem -- Session 9 -- Near-Optimum Global Routing with Coupling, Delay Bounds, and Power Consumption -- A Flow-Based Method for Improving the Expansion or Conductance of Graph Cuts -- All Rational Polytopes Are Transportation Polytopes and All Polytopal Integer Sets Are Contingency Tables -- Session 10 -- A Capacity Scaling Algorithm for M-convex Submodular Flow -- Integer Concave Circulations and Honeycombs -- Minsquare Factors and Maxfix Covers of Graphs -- Session 11 -- Low-Dimensional Faces of Random 0/1-Polytopes -- On Polyhedra Related to Even Factors -- Optimizing over Semimetric Polytopes.

Sommario/riassunto

This volume contains the papers accepted for publication at IPCO X, the Tenth International Conference on Integer Programming and Combinatorial Optimization, held in New York City, New York, USA, June 7–11, 2004. The IPCO series of conferences presents recent results in theory, computation and applications of integer programming and combinatorial optimization. These conferences are sponsored by the Mathematical Programming Society, and are held in those years in which no International Symposium on Mathematical Programming takes place. IPCO VIII was held in Utrecht (The Netherlands) and IPCO IX was held in Cambridge (USA). A total of 109 abstracts, mostly of very high quality, were submitted. The Program Committee accepted 32, in order to meet the goal of having three days of talks with no parallel sessions. Thus, many excellent abstracts could not be accepted. The papers in this volume have not been refereed. It is expected that revised versions of the accepted papers will be submitted to standard scientific journals for publication. The Program Committee thanks all authors of submitted manuscripts for their support of IPCO. March 2004 George Nemhauser Daniel Bienstock Organization IPCO X was hosted by the Computational Optimization Research Center (CORC), Columbia University.
