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Nota di contenuto	1. Simplicial Partitions in Global Optimization -- 2. Lipschitz Optimization with Different Bounds over Simplices -- 3. Simplicial Lipschitz Optimization without Lipschitz Constant -- 4. Applications of Global Optimization Benefiting from Simplicial Partitions -- References. -Description of Test Problems.
Sommario/riassunto	Simplicial Global Optimization is centered on deterministic covering methods partitioning feasible region by simplices. This book looks into the advantages of simplicial partitioning in global optimization through applications where the search space may be significantly reduced while taking into account symmetries of the objective function by setting linear inequality constraints that are managed by initial partitioning. The authors provide an extensive experimental investigation and illustrates the impact of various bounds, types of

subdivision, strategies of candidate selection on the performance of algorithms. A comparison of various Lipschitz bounds over simplices and an extension of Lipschitz global optimization with-out the Lipschitz constant to the case of simplicial partitioning is also depicted in this text. Applications benefiting from simplicial partitioning are examined in detail such as nonlinear least squares regression and pile placement optimization in grillage-type foundations. Researchers and engineers will benefit from simplicial partitioning algorithms such as Lipschitz branch and bound, Lipschitz optimization without the Lipschitz constant, heuristic partitioning presented. This book will leave readers inspired to develop simplicial versions of other algorithms for global optimization and even use other non-rectangular partitions for special applications.
