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Sommario/riassunto	Distance Geometry: Theory, Methods, and Applications is the first collection of research surveys dedicated to distance geometry and its applications. The first part of the book discusses theoretical aspects of the Distance Geometry Problem (DGP), where the relation between DGP and other related subjects are also presented. Covered topics include distance matrix theory, Euclidean distance matrix completion, multispherical structure of distance matrices, geometric algebra, algebraic distance geometry theory, visualization of K-dimensional structures in the plane, graph rigidity, and theory of discretizable DGP. The second part of this volume presents mathematical and computational properties of methods developed to the problems discussed in the first portion, including continuous methods (based on Gaussian and hyperbolic smoothing, difference of convex functions, semidefinite programming, branch-and-bound), discrete methods (based on branch-and-prune, geometric build-up, graph rigidity), and also heuristics methods (based on simulated annealing, genetic algorithms, tabu search, variable neighborhood search). Applications comprise the third part of the book, which is mainly devoted to the application of DGP to NMR structure calculation. This is an important and strongly multidisciplinary application in biology and biomedicine.