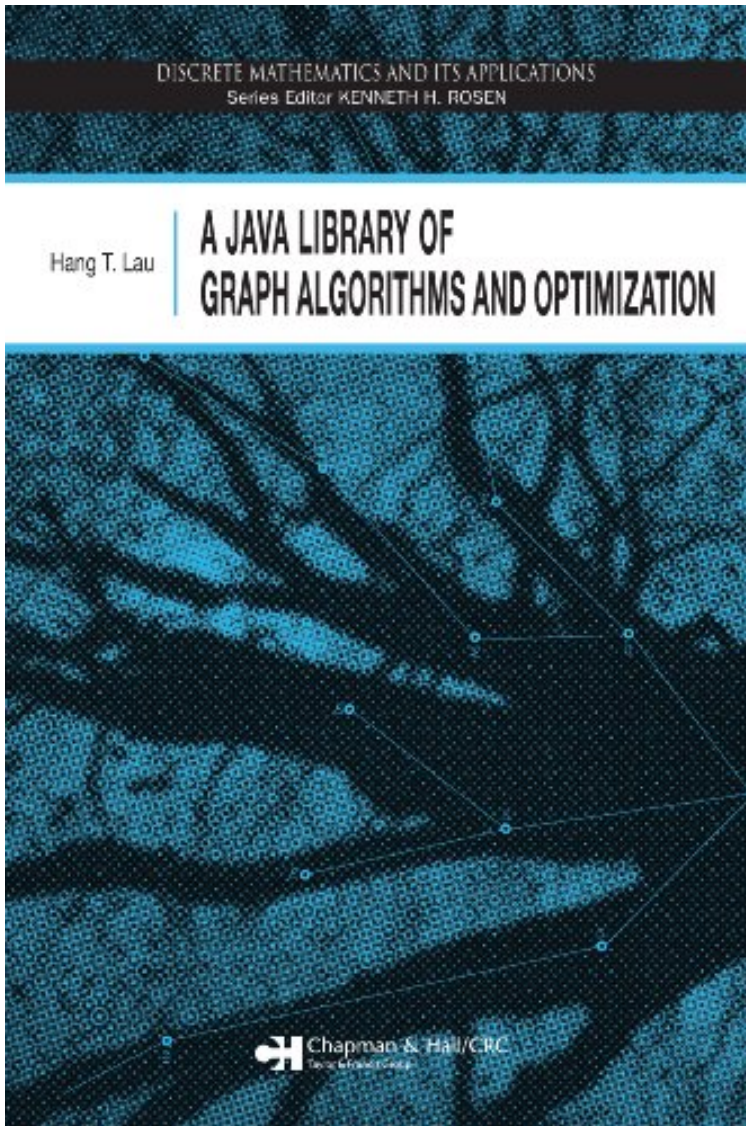


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A Java Library of Graph Algorithms and Optimization



Par Hang T. Lau

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book begins with a chapter on random graph generation that examines bipartite, regular, connected, Hamilton, and isomorphic graphs as well as spanning, labeled, and unlabeled rooted trees. It then discusses connectivity procedures, followed by a paths and cycles chapter that contains the Chinese postman and traveling salesman problems, Euler and Hamilton cycles, and shortest paths. The author proceeds to describe two test procedures involving planarity and graph isomorphism. Subsequent chapters deal with graph coloring, graph matching, network flow, and packing and covering, including the assignment, bottleneck assignment, quadratic assignment, multiple knapsack, set covering, and set partitioning problems. The final chapters explore linear, integer, and quadratic programming. The appendices provide references that offer further details of the algorithms and include the definitions of many graph theory terms used in the book.

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