Record Nr. UNINA9910954267103321 Autore Gan Guojun <1979, > Titolo Data clustering in C++: an object-oriented approach / / Guojun Gan Pubbl/distr/stampa Boca Raton,: CRC Press, 2011 Boca Raton, Fla.:,: Chapman and Hall/CRC,, 2011 **ISBN** 1-04-006134-6 0-429-10978-4 1-4398-6224-9 Edizione [1st edition] 1 online resource (512 p.) Descrizione fisica Collana Chapman & Hall/CRC data mining and knowledge discovery series Disciplina 519.5/3 Cluster analysis - Data processing Soggetti C++ (Computer program language) Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali A Chapman & Hall book. Includes bibliographical references (p. 469-486) and indexes. Nota di bibliografia Nota di contenuto Front Cover: Dedication: Contents: List of Figures: List of Tables: Preface; I. Data Clustering and C++ Preliminaries; 1. Introduction to Data Clustering: 2. The Unified Modeling Language: 3. Object-Oriented Programming and C++; 4. DesignPatterns; 5. C++ Libraries and Tools; II. A C++ Data Clustering Framework; 6. The Clustering Library; 7. Datasets: 8. Clusters: 9. Dissimilarity Measures: 10. Clustering Algorithms; 11. Utility Classes; III. Data Clustering Algorithms; 12. Agglomerative Hierarchical Algorithms; 13. DIANA; 14. The k-means Algorithm; 15. The c-means Algorithm 16. The k-prototypes Algorithm17. The Genetic k-modes Algorithm; 18. The FSC Algorithm; 19. The Gaussian Mixture Algorithm; 20. A Parallel k-means Algorithm; A. Exercises and Projects; B. Listings; C. Software; Bibliography Sommario/riassunto Data clustering is a highly interdisciplinary field, the goal of which is to divide a set of objects into homogeneous groups such that objects in the same group are similar and objects in different groups are quite distinct. Thousands of theoretical papers and a number of books on data clustering have been published over the past 50 years. However,

few books exist to teach people how to implement data clustering algorithms. This book was written for anyone who wants to implement

or improve their data clustering algorithms. Using object-oriented design and programming techniques, Data Clusterin