1. Record Nr. UNINA9910457785103321 Autore Gan Guojun <1979, > Titolo Data clustering in C++: an object-oriented approach / / Guojun Gan Pubbl/distr/stampa Boca Raton, Fla.:,: Chapman and Hall/CRC,, 2011 **ISBN** 0-429-10978-4 1-4398-6224-9 Edizione [1st edition] Descrizione fisica 1 online resource (512 p.) Chapman & Hall/CRC data mining and knowledge discovery series Collana Disciplina 519.5/3 Soggetti Cluster analysis - Data processing C++ (Computer program language) Electronic books. Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali A Chapman & Hall book. Nota di bibliografia Includes bibliographical references (p. 469-486) and indexes. 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 Data clustering is a highly interdisciplinary field, the goal of which is to Sommario/riassunto 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