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Descrizione fisica	1 online resource (xxvi, 616 pages, 4 unnumbered pages of plates) : illustrations (some color)
Collana	Chapman & Hall/CRC data mining and knowledge discovery series
Classificazione	BUS061000COM021030COM037000
Disciplina	519.535
Soggetti	Document clustering Cluster analysis Data mining Machine theory File organization (Computer science)
Lingua di pubblicazione	Inglese
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Note generali	Description based upon print version of record.
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Nota di contenuto	Front Cover; Contents; Preface; Editor Biographies; Contributors; Chapter 1: An Introduction to Cluster Analysis; Chapter 2: Feature Selection for Clustering: A Review; Chapter 3: Probabilistic Models for Clustering; Chapter 4: A Survey of Partitional and Hierarchical Clustering Algorithms; Chapter 5: Density-Based Clustering; Chapter 6: Grid-Based Clustering; Chapter 7: Nonnegative Matrix Factorizations for Clustering: A Survey; Chapter 8: Spectral Clustering; Chapter 9: Clustering High-Dimensional Data; Chapter 10: A Survey of Stream Clustering Algorithms; Chapter 11: Big Data Clustering Chapter 12: Clustering Categorical DataChapter 13: Document Clustering: The Next Frontier; Chapter 14 : Clustering Multimedia Data; Chapter 15: Time-Series Data Clustering; Chapter 16: Clustering Biological Data; Chapter 17: Network Clustering; Chapter 18: A Survey

of Uncertain Data Clustering Algorithms; Chapter 19: Concepts of Visual and Interactive Clustering; Chapter 20: Semisupervised Clustering; Chapter 21: Alternative Clustering Analysis: A Review; Chapter 22 : Cluster Ensembles: Theory and Applications; Chapter 23: Clustering Validation Measures
Chapter 24: Educational and Software Resources for Data Clustering
Color Inserts; Back Cover

Sommario/riassunto

Research on the problem of clustering tends to be fragmented across the pattern recognition, database, data mining, and machine learning communities. Addressing this problem in a unified way, *Data Clustering: Algorithms and Applications* provides complete coverage of the entire area of clustering, from basic methods to more refined and complex data clustering approaches. It pays special attention to recent issues in graphs, social networks, and other domains. The book focuses on three primary aspects of data clustering: **Methods**, describing key techniques commonly used for clustering, such as feature selection, agglomerative clustering, partitional clustering, density-based clustering, probabilistic clustering, grid-based clustering, spectral clustering, and nonnegative matrix factorization. **Domains**, covering methods used for different domains of data, such as categorical data, text data, multimedia data, graph data, biological data, stream data, uncertain data, time series clustering, high-dimensional clustering, and big data. **Variations and Insights**, discussing important variations of the clustering process, such as semisupervised clustering, interactive clustering, multiview clustering, cluster ensembles, and cluster validation. In this book, top researchers from around the world explore the characteristics of clustering problems in a variety of application areas. They also explain how to glean detailed insight from the clustering process—including how to verify the quality of the underlying clusters—through supervision, human intervention, or the automated generation of alternative clusters.
