

1. Record Nr.	UNINA9910298980103321
Autore	Simovici Dan A
Titolo	Mathematical Tools for Data Mining : Set Theory, Partial Orders, Combinatorics / / by Dan A. Simovici, Chabane Djeraba
Pubbl/distr/stampa	London : , : Springer London : , : Imprint : Springer, , 2014
ISBN	1-4471-6407-5
Edizione	[2nd ed. 2014.]
Descrizione fisica	1 online resource (834 p.)
Collana	Advanced Information and Knowledge Processing, , 1610-3947
Disciplina	006.312
Soggetti	Data mining Computer science—Mathematics Computer science - Mathematics Data Mining and Knowledge Discovery Mathematics of Computing Discrete Mathematics in Computer Science Computational Mathematics and Numerical Analysis
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Sets, Relations and Functions -- Partially Ordered Sets -- Combinatorics -- Topologies and Measures -- Linear Spaces -- Norms and Inner Products -- Spectral Properties of Matrices -- Metric Spaces -- Topologies and Measures -- Convex Sets and Convex Functions -- Graphs and Matrices -- Lattices and Boolean Algebras -- Applications to Databases and Data Mining -- Frequent Item Sets and Association Rules -- Special Metrics -- Dimensions of Metric Spaces -- Clustering.
Sommario/riassunto	Data mining essentially relies on several mathematical disciplines, many of which are presented in this second edition of this book. Topics include partially ordered sets, combinatorics, general topology, metric spaces, linear spaces, graph theory. To motivate the reader a significant number of applications of these mathematical tools are included ranging from association rules, clustering algorithms, classification, data constraints, logical data analysis, etc. The book is intended as a reference for researchers and graduate students. The current edition is a significant expansion of the first edition. We strived

to make the book self-contained, and only a general knowledge of mathematics is required. More than 700 exercises are included and they form an integral part of the material. Many exercises are in reality supplemental material and their solutions are included.
