Record Nr. UNINA9910483261003321 Autore Mathar Rudolf **Titolo** Fundamentals of data analytics: with a view to machine learning // Rudolf Mathar [and three others] Pubbl/distr/stampa Cham, Switzerland: ,: Springer, , [2020] ©2020 **ISBN** 3-030-56831-8 Edizione [1st ed. 2020.] Descrizione fisica 1 online resource (XI, 127 p. 41 illus., 28 illus. in color.) Disciplina 519.50285 Statistics - Data processing Soggetti Big data Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references and index. 1 Introduction -- 2 Prerequisites from Matrix Analysis -- 3 Multivariate Nota di contenuto Distributions and Moments -- 4 Dimensionality Reduction -- 5 Classification and Clustering -- 6 Support Vector Machines -- 7 Machine Learning -- Index. This book introduces the basic methodologies for successful data Sommario/riassunto analytics. Matrix optimization and approximation are explained in detail and extensively applied to dimensionality reduction by principal component analysis and multidimensional scaling. Diffusion maps and spectral clustering are derived as powerful tools. The methodological overlap between data science and machine learning is emphasized by

supervised and unsupervised learning. .

demonstrating how data science is used for classification as well as