



1st ed. 2020, XI, 127 p. 41 illus., 28 illus. in color.

Printed book

Hardcover

74,99 € | £64.99 | \$89.99

^[1]80,24 € (D) | 82,49 € (A) | CHF

88,50

eBook

64,19 € | £51.99 | \$69.99

^[2]64,19 € (D) | 64,19 € (A) | CHF

70,50

Available from your library or
[springer.com/shop](https://www.springer.com/shop)

MyCopy ^[3]

Printed eBook for just

€ | \$ 24.99

[springer.com/mycopy](https://www.springer.com/mycopy)

R. Mathar, G. Alirezaei, E. Balda, A. Behboodi

Fundamentals of Data Analytics

With a View to Machine Learning

- Comprehensive and in-depth treatment of the mathematical foundations of data science
- Guiding from general optimization approaches to finding structures in data
- Provides exercises for each chapter
- Elaborating the methodological intersection between data science and machine learning
- Providing material for a three hours per week course on data analytics for graduate students

This book introduces the basic methodologies for successful data 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 demonstrating how data science is used for classification as well as supervised and unsupervised learning.

Order online at [springer.com](https://www.springer.com) / or for the Americas call (toll free) 1-800-SPRINGER / or email us at: customerservice@springernature.com. / For outside the Americas call +49 (0) 6221-345-4301 / or email us at: customerservice@springernature.com.

The first € price and the £ and \$ price are net prices, subject to local VAT. Prices indicated with [1] include VAT for books; the €(D) includes 7% for Germany, the €(A) includes 10% for Austria. Prices indicated with [2] include VAT for electronic products; 19% for Germany, 20% for Austria. All prices exclusive of carriage charges. Prices and other details are subject to change without notice. All errors and omissions excepted. [3] No discount for MyCopy.

