



Springer

1st
edition1st ed. 2016, XIV, 497 p.
177 illus., 138 illus. in color.**Printed book**

Hardcover

Printed book

Hardcover

ISBN 978-3-319-30254-6

£ 74,99 | CHF 100,50 | 84,99 € |
93,49 € (A) | 90,94 € (D)

Available

Sale price valid through June 30, 2021

£ 34,99 | CHF 47,50 | 39,99 € |
43,99 € (A) | 42,79 € (D)**Discount group**

Standard (0)

Product category

Graduate/advanced undergraduate textbook

SeriesTexts in Computational Science and
Engineering**Other renditions**

Softcover

ISBN 978-3-319-80762-1

Softcover

ISBN 978-3-319-30255-3

Mathematics : Computational Science and Engineering

Holmes, Mark H.

Introduction to Scientific Computing and Data Analysis

- **MATLAB codes used for all of the numerical methods are available from author's website**
- **Extensive coverage of optimization methods including regression, both principal and independent component analysis, and variational calculus**
- **Directed towards problem solving that incorporates the mathematical foundations of the subject**

This textbook provides an introduction to numerical computing and its applications in science and engineering. The topics covered include those usually found in an introductory course, as well as those that arise in data analysis. This includes optimization and regression based methods using a singular value decomposition. The emphasis is on problem solving, and there are numerous exercises throughout the text concerning applications in engineering and science. The essential role of the mathematical theory underlying the methods is also considered, both for understanding how the method works, as well as how the error in the computation depends on the method being used. The MATLAB codes used to produce most of the figures and data tables in the text are available on the author's website and SpringerLink.

Order online at [springer.com/book sellers](https://www.springer.com/book sellers)**Springer Nature Customer Service Center GmbH**

Customer Service

Tiergartenstrasse 15-17

69121 Heidelberg

Germany

T: +49 (0)6221 345-4301

row-booksellers@springernature.com



ISBN 978-3-319-30254-6 / BIC: PDE / SPRINGER NATURE: SCM14026

Prices and other details are subject to change without notice. All errors and omissions excepted. Americas: Tax will be added where applicable. Canadian residents please add PST, QST or GST. Please add \$5.00 for shipping one book and \$ 1.00 for each additional book. Outside the US and Canada add \$ 10.00 for first book, \$5.00 for each additional book. If an order cannot be fulfilled within 90 days, payment will be refunded upon request. Prices are payable in US currency or its equivalent.

Part of **SPRINGER NATURE**