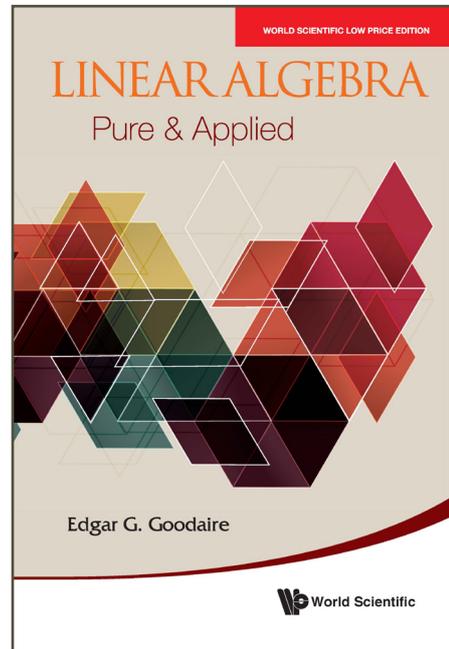


# LINEAR ALGEBRA

Pure & Applied

By

Edgar G Goodaire  
(Memorial University,  
Canada)



ISBN 9781944659912  
Extent: 732pp, PB  
Pub Date: 2022  
Price: Rs. 1995

## ABOUT THE BOOK

This is a matrix-oriented approach to linear algebra that covers the traditional material of the courses generally known as “Linear Algebra I” and “Linear Algebra II” throughout North America, but it also includes more advanced topics such as the pseudoinverse and the singular value decomposition that make it appropriate for a more advanced course as well. As is becoming increasingly the norm, the book begins with the geometry of Euclidean 3-space so that important concepts like linear combination, linear independence and span can be introduced early and in a “real” context. The book reflects the author’s background as a pure mathematician — all the major definitions and theorems of basic linear algebra are covered rigorously — but the restriction of vector spaces to Euclidean  $n$ -space and linear transformations to matrices, for the most part, and the continual emphasis on the system  $Ax=b$ , make the book less abstract and more attractive to the students of today than some others. As the subtitle suggests, however, applications play an important role too. Coding theory and least squares are recurring themes. Other applications include electric circuits, Markov chains, quadratic forms and conic sections, facial recognition and computer graphics.

## READERSHIP

Undergraduates in mathematics.

Feel Books Pvt. Ltd.  
4381/4 Ansari Road  
Daryaganj  
New Delhi 110002  
Tel: +91 11 47472600

## CONTENTS

- Euclidean  $n$ -Space
- Matrices and Linear Equations
- Determinants, Eigenvalues, Eigenvectors
- Vector Spaces
- Linear Transformations
- Orthogonality
- The Spectral Theorem

## REVIEWS

*“The style of writing is unhurried and careful. This book could be useful as a textbook or for self-study, particularly for mathematics students in the middle echelon. It is clear and well-written, with a reader-friendly style.”*

*Zentralblatt MATH*

*“Goodaire’s book gives a proper balance to logic and computation. This book is worth considering if you feel the need to change books for your course.”*

*Mathematical Association of America*

---

*For orders or enquiries, please contact us:*



### **Feel Books Pvt. Ltd.**

Delhi            Tel: +91 11 47472600, +91 9015043442, Email: orders@feelbooks.in

Bengaluru      Tel: +91 80 26762129, Email: bangalore@feelbooks.in

Mumbai        Mobile: +91 9820284211, Email: apandey@feelbooks.in

Chennai        Mobile: +91 9003047502, Email: gsrinivasan@feelbooks.in

Kolkata        Mobile: +91 9836160013, Email: dbhattacharjee@feelbooks.in

[www.feelbooks.in](http://www.feelbooks.in)

For any queries, please email us at [marketing@feelbooks.in](mailto:marketing@feelbooks.in)