



The Princeton Companion to Applied Mathematics

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This is the most authoritative and accessible single-volume reference book on applied mathematics. Featuring numerous entries by leading experts and organized thematically, it introduces readers to applied mathematics and its uses; explains key concepts; describes important equations, laws, and functions; looks at exciting areas of research; covers modeling and simulation; explores areas of application; and more.

Modeled on the popular *Princeton Companion to Mathematics*, this volume is an indispensable resource for undergraduate and graduate students, researchers, and practitioners in other disciplines seeking a user-friendly reference book on applied mathematics.

- Features nearly 200 entries organized thematically and written by an international team of distinguished contributors
- Presents the major ideas and branches of applied mathematics in a clear and accessible way
- Explains important mathematical concepts, methods, equations, and applications
- Introduces the language of applied mathematics and the goals of applied mathematical research
- Gives a wide range of examples of mathematical modeling
- Covers continuum mechanics, dynamical systems, numerical analysis, discrete and combinatorial mathematics, mathematical physics, and much more
- Explores the connections between applied mathematics and other disciplines
- Includes suggestions for further reading, cross-references, and a comprehensive index

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About the Author

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