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Titolo	The Princeton companion to applied mathematics // Nicholas J. Higham [and five others]
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ISBN	1-78684-230-0 1-4008-7447-5
Descrizione fisica	1 online resource (1,031 pages) : illustrations (some color)
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Soggetti	Algebra Mathematics Mathematical models
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Frontmatter -- Contents -- Preface / Higham, Nicholas J. -- Contributors -- Part I. Introduction to Applied Mathematics -- Part II. Concepts -- Part III. Equations, Laws, and Functions of Applied Mathematics -- Part IV. Areas of Applied Mathematics -- Part V. Modeling -- Part VI. Example Problems -- Part VII. Application Areas -- Part VIII. Final Perspectives -- Index
Sommario/riassunto	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 applicationsIntroduces the language of applied mathematics and the goals of applied mathematical researchGives a wide range of examples of mathematical modelingCovers continuum mechanics, dynamical systems, numerical analysis, discrete and combinatorial mathematics, mathematical physics, and much moreExplores the connections between applied mathematics and other disciplinesIncludes suggestions for further reading, cross-references, and a comprehensive index

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