

1. Record Nr.	UNINA9910463186903321
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Titolo	Applied mathematics [[electronic resource] /] / J. David Logan
Pubbl/distr/stampa	Hoboken, N.J., : Wiley, 2013
ISBN	1-118-50170-5
Edizione	[4th ed.]
Descrizione fisica	1 online resource (1131 p.) : ill
Disciplina	510
Soggetti	Mathematics Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Chapter 1: Dimensional Analysis and One-Dimensional Dynamics -- Chapter 2: Two-Dimensional Dynamical Systems -- Chapter 3: Perturbation Methods and Asymptotic Expansions -- Chapter 4: Calculus of Variations -- Chapter 5: Boundary Value Problems and Integral Equations -- Chapter 6: Partial Differential Equations -- Chapter 7: Wave Phenomena -- Chapter 8: Mathematical Models of Continua -- Chapter 9: Discrete Models -- Index.
Sommario/riassunto	Praise for the third edition: Future mathematicians, scientists, and engineers should find the book to be an excellent introductory text for coursework or self-study as well as worth its shelf space for reference, MAA Reviews. Applied Mathematics, fourth edition is a thoroughly updated and revised edition on the applications of modeling and analyzing natural, social, and technological processes. The book covers a wide range of key topics in mathematical methods and modeling and highlights the connections between mathematics and the applied and natural sciences. The fourth edition covers both standard and modern topics, including scaling and dimensional analysis; regular and singular perturbation; calculus of variations; Green's functions and integral equations; nonlinear wave propagation; and stability and bifurcation. The book provides extended coverage of mathematical biology, including biochemical kinetics, epidemiology, viral dynamics, and parasitic disease. In addition, the new edition features: Expanded coverage on orthogonality, boundary value problems, and distributions,

all of which are motivated by solvability and eigenvalue problems in elementary linear algebra; Additional MATLAB(R) applications for computer algebra system calculations; Over 300 exercises and 100 illustrations that demonstrate important concepts; New examples of dimensional analysis and scaling along with new tables of dimensions and units for easy reference; Review material, theory, and examples of ordinary differential equations; New material on applications to quantum mechanics, chemical kinetics, and modeling diseases and viruses. Written at an accessible level for readers in a wide range of scientific fields, Applied Mathematics, fourth edition is an ideal text for introducing modern and advanced techniques of applied mathematics to upper-undergraduate and graduate-level students in mathematics, science, and engineering. The book is also a valuable reference for engineers and scientists in government and industry.

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