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Autore	Logan J. David
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Nota di contenuto	Preface to the Third Edition.-1. First-Order Differential Equations -- 2. Second-Order Linear Equations -- 3. Laplace Transforms -- 4. Linear Systems -- 5. Nonlinear Systems -- 6. Computation of Solutions -- Appendix A. Review and Supplementary Exercises.-Appendix B. Matlab (R) Supplement -- References -- Index.
Sommario/riassunto	The third edition of this concise, popular textbook on elementary differential equations gives instructors an alternative to the many voluminous texts on the market. It presents a thorough treatment of the standard topics in an accessible, easy-to-read, format. The overarching perspective of the text conveys that differential equations are about applications. This book illuminates the mathematical theory in the text with a wide variety of applications that will appeal to students in physics, engineering, the biosciences, economics and mathematics. Instructors are likely to find that the first four or five chapters are suitable for a first course in the subject. This edition contains a healthy increase over earlier editions in the number of worked examples and exercises, particularly those routine in nature.

Two appendices include a review with practice problems, and a MATLAB® supplement that gives basic codes and commands for solving differential equations. MATLAB® is not required; students are encouraged to utilize available software to plot many of their solutions. Solutions to even-numbered problems are available on springer.com. From the reviews of the second edition: “The coverage of linear systems in the plane is nicely detailed and illustrated. ...Simple numerical methods are illustrated and the use of Maple and MATLAB is encouraged. ...select Dave Logan’s new and improved text for my course.” —Robert E. O’Malley, Jr., *SIAM Review*, Vol. 53 (2), 2011 “Aims to provide material for a one-semester course that emphasizes the basic ideas, solution methods, and an introduction to modeling. ...The book that results offers a concise introduction to the subject for students of mathematics, science and engineering who have completed the introductory calculus sequence. ...This book is worth a careful look as a candidate text for the next differential equations course you teach.” —William J. Satzer, *MAA Reviews*, January, 2011.
