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   Autore   Gander Walter

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   Collana   La Matematica per il 3+2, , 2038-5722 ; ; 95

   Disciplina   510

   Soggetti   Algorithms
                            Computer science - Mathematics
                            Computer software
                            Software engineering
                            Application software
                            Computational Science and Engineering
                            Mathematical Software
                            Software Engineering/Programming and Operating Systems
                            Computer Applications

   Lingua di pubblicazione Inglese

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   Livello bibliografico   Monografia

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   Nota di bibliografia   Includes bibliographical references.

   Nota di contenuto   Chapter 1. Starting and Using Matlab -- Chapter 2. How a Computer
                            Calculates -- Chapter 3. Plotting Functions and Curves -- Chapter 4.
                            Some Elementary Functions -- Chapter 5. Computing with Multiple
                            Precision -- Chapter 6. Solving Linear Equations -- Chapter 7.
                            Recursion -- Chapter 8. Iteration and Nonlinear Equations -- Chapter
                            9. Simulation -- Chapter 10. Solutions of Problems -- Bibliography.

   Sommario/riassunto   This comprehensive and stimulating introduction to Matlab, a computer
                            language now widely used for technical computing, is based on an
                            introductory course held at Qian Weichang College, Shanghai
                            University, in the fall of 2014. Teaching and learning a substantial
                            programming language aren't always straightforward tasks.
                            Accordingly, this textbook is not meant to cover the whole range of this
                            high-performance technical programming environment, but to
                            motivate first- and second-year undergraduate students in

mathematics and computer science to learn Matlab by studying representative problems, developing algorithms and programming them in Matlab. While several topics are taken from the field of scientific computing, the main emphasis is on programming. A wealth of examples are completely discussed and solved, allowing students to learn Matlab by doing: by solving problems, comparing approaches and assessing the proposed solutions.