

1. Record Nr.	UNINA9910830412703321
Autore	Lyshevski Sergey Edward
Titolo	Engineering and scientific computations using MATLAB [[electronic resource] /] / Sergey E. Lyshevski
Pubbl/distr/stampa	Hoboken, : Wiley-Interscience, c2003
ISBN	1-280-27333-X 9786610273331 0-470-35753-3 0-471-72385-1 0-471-72386-X
Descrizione fisica	1 online resource (239 p.)
Disciplina	620.00151 620.002855369
Soggetti	Engineering mathematics - Data processing Science - Data processing
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Engineering and Scientific Computations Using MATLAB®; CONTENTS; Preface; About the Author; 1. MATLAB Basics; 1.1. Introduction; 1.2. MATLAB Start; 1.3. MATLAB Help and Demo; References; 2. MATLAB Functions, Operators, and Commands; 2.1. Mathematical Functions; 2.2. MATLAB Characters and Operators; 2.3. MATLAB Commands; References; 3. MATLAB and Problem Solving; 3.1. Starting MATLAB; 3.2. Basic Arithmetic; 3.3. How to Use Some Basic MATLAB Features; 3.3.1. Scalars and Basic Operations with Scalars; 3.3.2. Arrays, Vectors, and Basic Operations; 3.4. Matrices and Basic Operations with Matrices 3.5. Conditions and Loops3.6. Illustrative Examples; References; 4. MATLAB Graphics; 4.1. Plotting; 4.2. Two- and Three-Dimensions Graphics; 4.3. Illustrative Examples; References; 5. MATLAB Applications: Numerical Simulations of Differential Equations and Introduction to Dynamic Systems; 5.1. Solution of Differential Equations and Dynamic Systems Fundamentals; 5.2. Mathematical Model Developments and MATLAB Applications; 5.3. Modeling and Computing Using MATLAB; References; 6. SIMULINK; 6.1. Introduction to SIMULINK;

## 6.2. Engineering and Scientific Computations Using SIMULINK with Examples

### References APPENDIX: MATLAB Functions, Operators, Characters, Commands, and Solvers; References; Index

#### Sommario/riassunto

Master MATLAB(r) step-by-stepThe MATLAB-- ""MATrix LABoratory"-- computational environment offers a rich set of capabilities to efficiently solve a variety of complex analysis, simulation, and optimization problems. Flexible, powerful, and relatively easy to use, the MATLAB environment has become a standard cost-effective tool within the engineering, science, and technology communities. Excellent as a self-teaching guide for professionals as well as a textbook for students, Engineering and Scientific Computations Using MATLAB helps you fully understand the MATLAB environment, build your sk