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Nota di contenuto	Cover; Copyright; Credits; About the Author; About the Reviewers; www.PacktPub.com; Table of Contents; Preface; Chapter 1:Introducing GNU Octave; So what is GNU Octave?; Applications; Limitations of Octave; Octave and MATLAB; The Octave community; Installing Octave; Windows; GNU/Linux; Building Octave from the source under GNU/Linux; Time for action - building Octave from source; Checking your installation with peaks; Time for action - testing with peaks; Customizing Octave; Time for action - creating an Octave home directory under Windows.; Creating your first .octaverc file Time for action - editing the .octaverc fileMore on .octaverc; Installing additional packages; Time for action - installing additional packages; Uninstalling a package; Getting help; The behaviour of the Octave command prompt; Summary; Chapter 2:Interacting with Octave: Variables and Operators; Simple numerical variables; Accessing and

changing array elements; More examples; Time for action - manipulating arrays; Complex variables; Text variables; Higher-dimensional arrays; Structures and cell arrays; Structures; Time for action - instantiating a structure; Accessing structure fields
Cell arraysTime for action - instantiating a cell array; Getting information; Time for action - using whos; Size, rows, columns, and length; Identifying the variable type; Deleting variables from the workspace; A few things that make life easier; Basic arithmetic; Addition and subtraction; Time for action - doing addition and subtraction operations; Matrix multiplication; Time for action - doing multiplication operations; Element-by-element, power, and transpose operations; Operators for structures and cell arrays; Solving linear equation systems: left and right division
Time for action - doing left and right divisionBasic arithmetic for complex variables; Summary of arithmetic operators; Comparison operators and precedence rules; Precedence rules; Time for action - working with precedence rules; A few hints; Summary; Chapter 3: Working with Octave: Functions and Plotting; Octave functions; Mathematical functions; Time for action - using the cos function; Polynomials in Octave; More complicated mathematical functions; Time for action - putting together mathematical functions; Helper functions; Generating random numbers; min and max; Sorting arrays
find, any, and allfloor, ceil, round, and fix; Time for action - trying out floor, ceil, round, and fix; sum and prod; Absolute values; Complex input arguments; Operator functions; Linear algebra; Time for action - using Octave for advanced linear algebra; Polynomials; Two-dimensional plotting; Time for action - making your first plot; plot and set; Time for action - changing the figure properties; Adding lines and text to your plot; Plot styles and colors; Title and legends; Ticks; Grids; fplot; Clear the figure window; Moving on; Time for action - having multiple graphs in the same figure
Multiple figure windows

Sommario/riassunto

Become a proficient Octave user by learning this high-level scientific numerical tool from the ground up