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   Numerical analysis - Data processing

   Lingua di pubblicazione   Inglese

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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: Getting Started with NumPy; Python; Installing NumPy, Matplotlib, SciPy, and IPython on Windows; Installing NumPy, Matplotlib, SciPy, and IPython on Linux; Installing NumPy, Matplotlib, and SciPy on Mac OS X; Building from source; NumPy arrays; Adding arrays; Online resources and help; Summary; Chapter 2: NumPy Basics; The NumPy array object; The advantages of using NumPy arrays; Creating a multidimensional array; Selecting array elements; NumPy numerical types
   Data type objectsCharacter codes; dtype constructors; dtype attributes; Creating a record data type; One-dimensional slicing and indexing; Manipulating array shapes; Stacking arrays; Splitting arrays; Array attributes; Converting arrays; Creating views and copies; Fancy indexing; Indexing with a list of locations; Indexing arrays with Booleans; Stride tricks for Sudoku; Broadcasting arrays; Summary; Chapter 3: Basic Data Analysis with NumPy; Introducing the dataset; Determining the daily temperature range; Looking for evidence of global warming; Comparing solar radiation versus temperature
   Analyzing wind directionAnalyzing wind speed; Analyzing precipitation and sunshine duration; Analyzing monthly precipitation in De Bilt; Analyzing atmospheric pressure in De Bilt; Analyzing atmospheric

| Sommario/riassunto | A step-by-step guide, packed with examples of practical numerical analysis that will give you a comprehensive, but concise overview of NumPy. This book is for programmers, scientists, or engineers, who have basic Python knowledge and would like to be able to do numerical computations with Python. |