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Titolo	Introduction to Python in Earth Science Data Analysis : From Descriptive Statistics to Machine Learning / / by Maurizio Petrelli
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Soggetti	Physical geography Computer simulation Statistics Earth System Sciences Computer Modelling Applied Statistics
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Nota di contenuto	Part I Python for Geologists, a kick-off -- Setting Up Your Python Environment, Easily -- Python Essentials for a Geologist -- Start Solving Geological Problems Using Python -- Part II Describing Geological Data -- Graphical Visualization of a Geological Dataset -- Descriptive Statistics -- Part III Integrals and Differential Equations in Geology -- Numerical Integration -- Ordinary Differential Equations (ODE) -- Partial Differential Equations (PDE) -- Part IV Probability Density Functions and Error Analysis -- Probability Density Functions and their Use in Geology -- Error Analysis -- Part V Robust Statistics and Machine Learning -- Introduction to Robust Statistics -- 12. Machine Learning.
Sommario/riassunto	This textbook introduces the use of Python programming for exploring and modelling data in the field of Earth Sciences. It drives the reader from his very first steps with Python, like setting up the environment and starting writing the first lines of codes, to proficient use in visualizing, analyzing, and modelling data in the field of Earth Science.

Each chapter contains explicative examples of code, and each script is commented in detail. The book is minded for very beginners in Python programming, and it can be used in teaching courses at master or PhD levels. Also, Early careers and experienced researchers who would like to start learning Python programming for the solution of geological problems will benefit the reading of the book.
