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	Titolo	An Introduction to Statistics with Python : With Applications in the Life Sciences / / by Thomas Haslwanter
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	ISBN	3-319-28316-2
	Edizione	[1st ed. 2016.]
	Descrizione fisica	1 online resource (XVII, 278 p. 113 illus., 85 illus. in color.)
	Collana	Statistics and Computing, , 1431-8784
	Disciplina	519.5
	Soggetti	Statistics
		Biostatistics
		Computer mathematics
		Programming languages (Electronic computers)
		Statistics and Computing/Statistics Programs
		Statistics for Life Sciences, Medicine, Health Sciences
		Computational Science and Engineering
		Programming Languages, Compilers, Interpreters
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
	Nota di contenuto	Part I: Python and Statistics -- Why Statistics? -- Python -- Data Input -- Display of Statistical Data -- Part II: Distributions and Hypothesis Tests -- Background -- Distributions of One Variable -- Hypothesis Tests -- Tests of Means of Numerical Data -- Tests on Categorical Data -- Analysis of Survival Times -- Part III: Statistical Modelling -- Linear Regression Models -- Multivariate Data Analysis -- Tests on Discrete Data -- Bayesian Statistics -- Solutions -- Glossary -- Index.
	Sommario/riassunto	This textbook provides an introduction to the free software Python and its use for statistical data analysis. It covers common statistical tests for continuous, discrete and categorical data, as well as linear regression analysis and topics from survival analysis and Bayesian statistics. Working code and data for Python solutions for each test, together with easy-to-follow Python examples, can be reproduced by the reader and reinforce their immediate understanding of the topic. With recent advances in the Python ecosystem, Python has become a popular

language for scientific computing, offering a powerful environment for statistical data analysis and an interesting alternative to R. The book is intended for master and PhD students, mainly from the life and medical sciences, with a basic knowledge of statistics. As it also provides some statistics background, the book can be used by anyone who wants to perform a statistical data analysis. .