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	Titolo	An Introduction to Data Analysis using Aggregation Functions in R / / by Simon James
	Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2016
	ISBN	3-319-46762-X
	Edizione	[1st ed. 2016.]
	Descrizione fisica	1 online resource (X, 199 p. 29 illus., 20 illus. in color.)
	Disciplina	519.50285
	Soggetti	Artificial intelligence
		Statistics
		Applied mathematics
		Engineering mathematics
		Computer science—Mathematics
		R (Computer program language)
		Artificial Intelligence
		Statistics for Engineering, Physics, Computer Science, Chemistry and Earth Sciences
		Applications of Mathematics
		Mathematics of Computing
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
	Nota di contenuto	Aggregating data with averaging functions -- Transforming data -- Weighted averaging -- Averaging with interaction -- Fitting aggregation functions to empirical data -- Solutions.
	Sommario/riassunto	This textbook helps future data analysts comprehend aggregation function theory and methods in an accessible way, focusing on a fundamental understanding of the data and summarization tools. Offering a broad overview of recent trends in aggregation research, it complements any study in statistical or machine learning techniques. Readers will learn how to program key functions in R without obtaining an extensive programming background. Sections of the textbook cover background information and context, aggregating data with averaging functions, power means, and weighted averages including the Borda

count. It explains how to transform data using normalization or scaling and standardization, as well as log, polynomial, and rank transforms. The section on averaging with interaction introduces OWS functions and the Choquet integral, simple functions that allow the handling of non-independent inputs. The final chapters examine software analysis with an emphasis on parameter identification rather than technical aspects. This textbook is designed for students studying computer science or business who are interested in tools for summarizing and interpreting data, without requiring a strong mathematical background. It is also suitable for those working on sophisticated data science techniques who seek a better conception of fundamental data aggregation. Solutions to the practice questions are included in the textbook.