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Titolo	Statistical Models and Methods for Data Science // edited by Leonardo Grilli, Monia Lupparelli, Carla Rampichini, Emilia Rocco, Maurizio Vichi
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ISBN	9783031301643 3031301641
Edizione	[1st ed. 2023.]
Descrizione fisica	1 online resource (viii, 188 pages) : illustrations
Collana	Studies in Classification, Data Analysis, and Knowledge Organization, , 2198-3321
Disciplina	005.7
Soggetti	Mathematical statistics - Data processing Quantitative research Machine learning Statistics Artificial intelligence - Data processing Statistics and Computing Data Analysis and Big Data Statistical Learning Statistical Theory and Methods Applied Statistics Data Science Dades massives Estadística matemàtica Congressos Llibres electrònics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes author index.
Nota di contenuto	Clustering financial time series by dependency -- The Homogeneity Index as a Measure of Interrater Agreement for Ratings on a Nominal Scale -- Hierarchical clustering of income data based on share densities -- Optimal Coding of High Cardinality Categorical Data in Machine Learning -- Bayesian Multivariate Analysis of Mixed data --

Marginals matrix under a generalized Mallows model based on the power divergence -- Time series clustering based on forecast distributions: an empirical analysis on production indices for construction -- Partial Reconstruction of Measures from Halfspace Depth -- Posterior Predictive Assessment of IRT Models via the Hellinger Distance: A Simulation Study -- Shapley Lorenz values for credit risk management -- A study of lack-of-fit diagnostics for models fit to cross-classified binary variables -- Robust Response Transformations for Generalized Additive Models via Additivity and Variance Stabilisation -- A Random-Coefficients Analysis with a Multivariate Random-Coefficients Linear Model -- Parsimonious mixtures of matrix-variate shifted exponential normal distributions.

#### Sommario/riassunto

This book focuses on methods and models in classification and data analysis and presents real-world applications at the interface with data science. Numerous topics are covered, ranging from statistical inference and modelling to clustering and factorial methods, and from directional data analysis to time series analysis and small area estimation. The applications deal with new developments in a variety of fields, including medicine, finance, engineering, marketing, and cyber risk. The contents comprise selected and peer-reviewed contributions presented at the 13th Scientific Meeting of the Classification and Data Analysis Group of the Italian Statistical Society, CLADAG 2021, held (online) in Florence, Italy, on September 9–11, 2021. CLADAG promotes advanced methodological research in multivariate statistics with a special focus on data analysis and classification, and supports the exchange and dissemination of ideas, methodological concepts, numerical methods, algorithms, and computational and applied results at the interface between classification and data science.