1. Record Nr. UNINA9911018812203321

Autore	Pesarin Fortunato
Titolo	Permutation tests for complex data : theory, applications and software / / Fortunato Pesarin, University of Padova, Luigi Salmaso, University of Padova
Pubbl/distr/stampa	John Wiley & Sons, Inc
ISBN	1-119-43819-5
Soggetti	Statistical hypothesis testing Permutations Multivariate analysis
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Sommario/riassunto	"Complex multivariate testing problems are frequently encountered in many scientific disciplines, such as engineering, medicine and the social sciences. As a result, modern statistics needs permutation testing for complex data with low sample size and many variables, especially in observational studies. The Authors describe permutation tests from the point of view of experimental design, avoiding cumbersome mathematical details, and illustrate the process of devising an appropriate permutation test through case studies. In addition to the text, we contribute two open source packages for permutation tests, permute in Python and permuter in R, which include a comprehensive code base to implement common permutation tests as well as the code to implement each of the book's case studies. This text may serve as an introduction to permutation tests for researchers, a handbook for researchers hoping to use the open source code, and a textbook in a graduate-level statistics or data science course"-- Provided by publisher.