Record Nr. UNINA9910755072503321 Autore Wilcox Rand R Titolo A Guide to Robust Statistical Methods [[electronic resource] /] / by Rand R. Wilcox Cham:,: Springer Nature Switzerland:,: Imprint: Springer,, 2023 Pubbl/distr/stampa **ISBN** 3-031-41713-5 Edizione [1st ed. 2023.] 1 online resource (335 pages) Descrizione fisica 519.5 Disciplina **Statistics** Soggetti Sampling (Statistics) Statistical Theory and Methods **Applied Statistics** Methodology of Data Collection and Processing Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto 1. Introduction -- 2. The one-sample case -- 3. Comparing two independent groups -- 4. Comparing two dependent groups -- 5. Comparing multiple independent groups -- 6. Comparing multiple dependent groups -- 7. Robust regression estimators -- 8. Inferential methods based on robust regression estimators -- 9. Measures of association -- 10. Comparing groups when there is a covariate. Sommario/riassunto Robust statistical methods are now being used in a wide range of disciplines. The appeal of these methods is that they are designed to perform about as well as classic techniques when standard assumptions are true—but they continue to perform well in situations where classic methods perform poorly. This book provides a relatively non-technical guide to modern methods. The focus is on applying modern methods using R, understanding when and why classic methods can be unsatisfactory, and fostering a conceptual understanding of the relative merits of different techniques. A recurring theme is that no single method reveals everything one would like to know about the population under study. An appeal of robust methods is that under general conditions they provide much higher power than

conventional techniques. Perhaps more importantly, they help provide a

deeper and more nuanced understanding of data. The book is for readers who had at least one semester of statistics, aimed at non-statisticians.