1. Record Nr. UNINA9910855391003321 Autore Glaz Joseph Titolo Handbook of Scan Statistics / / edited by Joseph Glaz, Markos V. Koutras New York, NY:,: Springer New York:,: Imprint: Springer,, 2024 Pubbl/distr/stampa **ISBN** 9781461480334 [1st ed. 2024.] Edizione Descrizione fisica 1 online resource (812 pages) Collana Mathematics and Statistics Series Altri autori (Persone) KoutrasMarkos V Disciplina 519.5 Soggetti **Statistics Bioinformatics** Biometry Social sciences - Statistical methods Statistical Theory and Methods **Biostatistics** Estadística matemàtica Statistics in Social Sciences, Humanities, Law, Education, Behavorial Sciences, Public Policy Statistics in Engineering, Physics, Computer Science, Chemistry and Earth Sciences Llibres electrònics Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto Preface -- I. History and Early Developments -- II. Methods and Techniques in Research and Scan Statistics -- III. One Dimensional Scan Statistics -- IV. Two and Three Dimensional Scan Statistics -- V. Biological Sciences -- VI. Biosurveillance and Reconnaissance -- VII. Engineering and Physical Sciences -- VIII. Ecology and Environmental Sciences -- IX. Information Sciences -- X. Medical Sciences -- XI. Public Health -- XII. Reliability and Quality Control -- XIII. Social Sciences --XIV. Veterinary and Animal Science. Sommario/riassunto Scan statistics, one of the most active research areas in applied probability and statistics, has seen a tremendous growth during the last

25 years. Google Scholar lists about 3,500 hits to references of articles on scan statistics since the year 2020, resulting in over 850 hits to

articles per year. This is mainly due to extensive and diverse areas of science and technology where scan statistics have been employed. including: atmospheric and climate sciences, business, computer science, criminology, ecology, epidemiology, finance, genetics and genomics, geographic sciences, medical and health sciences, nutrition, pharmaceutical sciences, physics, quality control and reliability, social networks and veterinary science. This volume of the Handbook of Scan Statistics is a collection of forty chapters, authored by leading experts in the field, outlines the research and the breadth of applications of scan statistics to the numerous areas of science and technology listed above. These chapters present an overview of the theory, methods and computational techniques, related to research in the area of scan statistics and outline future developments. It contains extensive references to research articles, books and relevant computer software. Handbook of Scan Statistics is an excellent reference for researchers and graduate students in applied probability and statistics, as well as for scientists in research areas where scan statistics are used. This volume may also be used as a textbook for a graduate level course on scan statistics...