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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	The specialized field of scan statistics, fathered by Joseph Naus around 1999, burgeoned rapidly to prominence in the field of applied probability and statistics. In additional to challenging theoretical probelms, scan statistics has exciting applications in many areas of science and technologyu including archaeology, astronomy, physics, bioinformatics, and food sciences, just to name a few. In many fields, decision makers give a great deal of weight to clusters of events. Public Health investigators look for common cause factors to explain clusters of, for example, cancer. Molecular biologists look for palindrome

clusters in DNA for clues as to the origin of replication viruses. Telecommunication engineers design capacity to accommodate clusters of calls being dialed simultaneously to a switchboard. Quality control experts investigate clusters of defects. The probabilities of different types of clusters under various conditions are tools of the physical, natural, and social sciences. Scan statistics arise naturally in the scanning of time and space, seeking clusters of events. It is therefore no surprise that scan statistics is a major area of research in probability and statistics in the 21st century. In the last 5 years about 1600 hits appear on Google Scholar referencing the extensive activity in scan statistics and the breadth of the application. (Since 2010, about 482 hits are recorded in Google scholar.) The Handbook of Scan Statistics in two volumes is intended for researchers in probability and statistics and scientists in several areas including biology, engineering, health, medical, and social sciences. It will be of great value to graduate students in statistics and in all areas where scan statistics are used.