Record Nr. UNINA9910483597703321 Autore Wang Xiaochun Titolo New developments in unsupervised outlier detection: algorithms and applications / / Xiaochun Wang, Xiali Wang, Mitch Wilkes Pubbl/distr/stampa Singapore:,: Springer,, [2021] ©2021 **ISBN** 981-15-9519-4 Edizione [1st ed. 2021.] Descrizione fisica 1 online resource (XXI, 277 p. 138 illus., 120 illus. in color.) Disciplina 006.312 Data mining Soggetti Outliers (Statistics) Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto Overview and Contributions -- Developments in Unsupervised Outlier Detection Research -- A Fast Distance-Based Outlier Detection Technique Using A Divisive Hierarchical Clustering Algorithm -- A k-Nearest Neighbour Centroid Based Outlier Detection Method -- A Minimum Spanning Tree Clustering Inspired Outlier Detection Technique -- A k-Nearest Neighbour Spectral Clustering Based Outlier Detection Technique -- Enhancing Outlier Detection by Filtering Out Core Points and Border Points -- An Effective Boundary Point Detection Algorithm via k-Nearest Neighbours Based Centroid -- A Nearest Neighbour Classifier Based Automated On-Line Novel Visual Percept Detection Method -- Unsupervised Fraud Detection in Environmental Time Series Data. . This book enriches unsupervised outlier detection research by Sommario/riassunto proposing several new distance-based and density-based outlier

This book enriches unsupervised outlier detection research by proposing several new distance-based and density-based outlier scores in a k-nearest neighbors' setting. The respective chapters highlight the latest developments in k-nearest neighbor-based outlier detection research and cover such topics as our present understanding of unsupervised outlier detection in general; distance-based and density-based outlier detection in particular; and the applications of the latest findings to boundary point detection and novel object detection. The book also offers a new perspective on bridging the gap between k-nearest neighbor-based outlier detection and clustering-

based outlier detection, laying the groundwork for future advances in unsupervised outlier detection research. The authors hope the algorithms and applications proposed here will serve as valuable resources for outlier detection researchers for years to come.