Record Nr. UNINA9910483459303321 Autore Owsinski J. W (Jan W.) Titolo Reverse Clustering: Formulation, Interpretation and Case Studies // by Jan W. Owsiski, Jarosaw Staczak, Karol Opara, Sawomir Zadrony, Janusz Kacprzyk Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa 2021 3-030-69359-7 ISBN Edizione [1st ed. 2021.] Descrizione fisica 1 online resource (117 pages) Collana Studies in Computational Intelligence, , 1860-9503;; 957 Disciplina 513.83 006.3 Soggetti Computational intelligence Engineering—Data processing Artificial intelligence Computational Intelligence **Data Engineering** Artificial Intelligence Teoria de conjunts Investigació quantitativa Llibres electrònics Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto The concept of reverse clustering -- Reverse clustering: the essence and the interpretations -- Case studies: an introduction -- The road traffic data -- The chemicals in the natural environment --Administrative units, Part I -- Administrative units, Part II -- Academic examples -- Summary and conclusions. Sommario/riassunto This book presents a new perspective on and a new approach to a wide spectrum of situations, related to data analysis, actually, a kind of a new paradigm. Namely, for a given data set and its partition, whose origins may be of any kind, the authors try to reconstruct this partition on the basis of the data set given, using very broadly conceived clustering procedure. The main advantages of this new paradigm

concern the substantive aspects of the particular cases considered.

mainly in view of the variety of interpretations, which can be assumed in the framework of the paradigm. Due to the novel problem formulation and the flexibility in the interpretations of this problem and its components, the domains, which are encompassed (or at least affected) by the potential use of the paradigm, include cluster analysis, classification, outlier detection, feature selection, and even factor analysis as well as geometry of the data set. The book is useful for all those who look for new, nonconventional approaches to their data analysis problems.