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| Nota di contenuto | Pushing Constraints to Detect Local Patterns -- From Local to Global Patterns: Evaluation Issues in Rule Learning Algorithms -- Pattern Discovery Tools for Detecting Cheating in Student Coursework -- Local Pattern Detection and Clustering -- Local Patterns: Theory and Practice of Constraint-Based Relational Subgroup Discovery -- Visualizing Very Large Graphs Using Clustering Neighborhoods -- Features for Learning |

Local Patterns in Time-Stamped Data -- Boolean Property Encoding for Local Set Pattern Discovery: An Application to Gene Expression Data Analysis -- Local Pattern Discovery in Array-CGH Data -- Learning with Local Models -- Knowledge-Based Sampling for Subgroup Discovery -- Temporal Evolution and Local Patterns -- Undirected Exception Rule Discovery as Local Pattern Detection -- From Local to Global Analysis of Music Time Series.

Sommario/riassunto

Introduction The dramatic increase in available computer storage capacity over the last 10 years has led to the creation of very large databases of scienti?c and commercial information. The need to analyze these masses of data has led to the evolution of the new ?eld knowledge discovery in databases (KDD) at the intersection of machine learning, statistics and database technology. Being interdisciplinary by nature, the ?eld o?ers the opportunity to combine the expertise of di? erent ?elds intoacommonobjective.Moreover,withineach? elddiversemethodshave been developed and justi?ed with respect to di? erent quality criteria. We have toinvestigatehowthesemethods cancontributeto solvingthe problemofKDD. Traditionally, KDD was seeking to ?nd global models for the data that - plain most of the instances of the database and describe the general structure of the data. Examples are statistical time series models, cluster models, logic programs with high coverageor classi?cation models like decision trees or linear decision functions. In practice, though, the use of these models often is very l- ited, because global models tend to ?nd only the obvious patterns in the data, 1 which domain experts already are aware of . What is really of interest to the users are the local patterns that deviate from the already-known background knowledge. David Hand, who organized a workshop in 2002, proposed the new ?eld of local patterns.