

# Abstract

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## **New Fast Algorithm for Incremental Mining of Association Rules**

mining association rules is a well-studied problem, several algorithms were presented for finding large itemsets. in this paper we present a new algorithm for incremental discovery of large itemsets in an increasing set of transactions. the proposed algorithm is based on partitioning the database keeping a summary of local large itemsets for each partition based on the concept of negative border technique. a global summary for the whole database is also created to facilitate the fast updating of overall large itemsets. when adding a new set of transactions to the database, the algorithm uses these summaries instead of scanning the whole database, thus reducing the number of database scans. the results of applying the new algorithm showed that the new technique is quite efficient, in many respects superior to other incremental algorithms like fast algorithm (fup) large itemsets (uli).