

# **Optimizing Tree-Based Contrast Subspace Mining Using Genetic Algorithm**

## **ABSTRACT**

Mining contrast subspace is a task of finding contrast subspace where a given query object is most similar to a target class but dissimilar to non-target class in a multidimensional data set. Recently, tree-based contrast subspace mining method has been introduced to find contrast subspace in numerical data set effectively. However, the contrast subspace search of the tree-based method may be trapped in local optima within the search space. This paper proposes a tree-based method which incorporates genetic algorithm to optimize the contrast subspace search by identifying global optima contrast subspace. The experiment results showed that the proposed method performed well on several cases compared to the variation of the tree-based method.