

# LEADER ANT CLUSTERING WITH CONSTRAINTS

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## TÓM TẮT:

In recent years, clustering with constraints has become a topic of significant interest for many researchers because it allows to take into account the knowledge from the domain, expressed as a set of constraints, and thus to improve the efficiency of the analysis. For example, these approaches can take place in an interactive process where a user iteratively expresses new constraints to refine previous clustering results. In this paper, we propose three new variants of the Leader Ant Clustering with Constraint algorithm (MCLA, MELA and CELA) that implements the following constraints: the mustlink, cannot-link constraints and epsilon-constraints. These algorithms have been compared to other constraint based clustering algorithms such as K-Means clustering with constraints and the original Leader Ant clustering algorithm. Our experiments show that, on UCI machine learning and artificial data sets, our approach compares well to the other algorithms