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## INTRODUCTION TO STEM PRESERVING EDGE PARTITIONING OF $R_v$ -DIFFERENCE BOUQUET GRAPH

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### Abstract

Graph Partitioning is one of the most important NP-complete problems, highly applicable in the fields of VLSI design, data mining, image segmentation, finite elements and communications in parallel computing, etc. In this paper we introduce a new process of edge partitioning called stem preserving edge (SPE) partitioning on  $R_v$ -difference bouquet (RDB) graph introduced in [1], which partitions a RDB graph into  $k$ -balanced RDB sub graphs. We have proposed an Algorithm depending on seed growth heuristic for partition which minimizes the edge cut.

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Key Words :  *$R_v$ -difference bouquet graph,  $k$ -balanced partitioning problem, Stem preserving edge partitioning, Minimum  $k$ -cut.*

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