

Shuffle Exchange Networks and Achromatic Labeling

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Abstract

Design of interconnection networks is an important integral part of the parallel processing or distributed systems. There are a large number of topological choices for interconnection networks. Among several choices, the Shuffle Exchange Network is one of the most popular versatile and efficient topological structures of interconnection networks. In this paper, we have given a new method of drawing shuffle exchange network for any dimension. This has enabled us to investigate some of the topological properties of shuffle-exchange network. Also we give an approximation algorithm for achromatic number of shuffle-exchange network.
