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Abstract
In these years, many efficient parallel algorithms have been designed for interconnection networks to solve all kind of problems. Among them, the embedding problems have received much attention. Embedding can help us to easily apply an algorithm that is designed on some interconnection network to another interconnection network. In terms of graph theory, we can view a network as a graph. We say a guest graph H can be embedded into a host graph G if G contains a subgraph isomorphic to H. For two networks A and B, if A can be embedded into B, then we can emulate A with B. That is, any algorithm designed on A can be executed on B. Recursive circulant graphs was proposed by J. H. Park and K. Y. Chwa recently. They own many good topological properties, such as symmetry, recursiveness, hamiltonicity, and fault-tolerant ability. In order to easily apply the efficient algorithms developed for mesh onto recursive circulant graphs, we propose an algorithm to embed meshes into recursive circulant graphs in this paper.
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