

## Matching Preclusion of Shuffle Cubes

S. Anantapantula\*, Northville High School; and E. Cheng and C. Melekian, Oakland University

The matching preclusion number of a graph is the minimum number of edges whose deletion results in a graph that has no perfect matchings. The class of shuffle cubes was introduced to address certain shortcomings of hypercubes. We discuss the matching preclusion number of this class of graphs as well as the classification of the optimal solutions.

Keywords: matchings, interconnection networks, shuffle cubes