1126-05-69 **Eddie Cheng*** (echeng@oakland.edu), Department of Mathematics and Statistics, Rochester, MI 48309, and **Justin Kelm** and **Omer Siddiqui**. *Strong matching preclusion of (n, k)-star graphs and arrangement graphs.*

The strong matching preclusion number of a graph is the minimum number of vertices and edges whose deletion results in a graph with neither perfect matchings nor almost-perfect matchings. This was introduced by Park and Ihm as an extension of the matching preclusion problem. The class of (n, k)-star graphs and the class of arrangement graphs were introduced as common generalizations of star graphs, and to provide a rich class of interconnection networks. In this talk, we discuss the strong matching preclusion number of (n, k)-star graphs and arrangement graphs, and to categorize all optimal strong matching preclusion sets of these graphs. (Received January 01, 2017)