Conditional fractional matching preclusion of pancake graphs

E. Cheng, L. Lipták, Oakland University, and S. Gupta*, Northville High School

Let G be a simple graph and $f : E(G) \longrightarrow [0, 1]$. Then f is a *fractional perfect matching* if $\sum_{e \in \delta'(v)} f(e) = 1$ for each vertex v of G where $\delta'(v)$ is the set of edges incident to v. The *fractional strong matching preclusion number* of G is the minimum number of vertices and edges in a set F such that $G - F$ has no fractional perfect matchings. Similarly, such a preclusion is *conditional* if it avoids isolating a vertex in $G - F$ In this talk, we discuss the conditional fractional strong matching preclusion number of the pancake graph.

Keywords: matching, interconnection networks