

Discrete Mathematics Seminar

Time: Friday, 23 April 2010, 12:30–1:30 PM

Location: 238 Derrick Hall

Title: Functigraphs: An Extension of Permutation Graphs

Speaker: Dr. Eunjeong Yi, Department of General Academics, Texas A&M at Galveston

Abstract:

Let G_1 and G_2 be disjoint copies of a graph G , and let $f : V(G_1) \rightarrow V(G_2)$ be a function. Then, a *functigraph* $C(G, f) = (V, E)$ has the vertex set $V = V(G_1) \cup V(G_2)$ and the edge set $E = E(G_1) \cup E(G_2) \cup \{uv : u \in V(G_1), v \in V(G_2), v = f(u)\}$. A functigraph is a generalization of a permutation graph in the sense of Chartrand and Harary. We discuss colorability and planarity of functigraphs.

This is a joint work with A. Chen, D. Ferrero, and R. Gera.