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Raluca M Gera* (rgera@nps.edu), 1 University Way, Monterey, CA 93943, and **Andrew Chen, Daniela Ferrero** and **Eunjeong Yi**. *Functigraphs: A Generalization of Permutation Graphs*.

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 $E = E(G_1) \cup E(G_2) \cup \{uv \mid u \in V(G_1), v \in V(G_2), v = f(u)\}$. A functigraph is a generalization of a *permutation graph* (also known as a *generalized prism*) in the sense of Chartrand and Harary. We present general results on functigraphs, with emphasis on colorings and planarity. (Received September 22, 2010)