Breeanne Baker* (bab207@lehigh.edu) and Garth Isaak. The $k$-Fixed-Endpoint Path Partition Problem.

Given a graph $G$ and a set $T$ of $k$ vertices, a $k$-fixed-endpoint path partition of $G$ with respect to $T$ is a set of vertex-disjoint paths which cover the vertices of $G$ and in which every vertex in $T$ is an endpoint of a path. The $k$-fixed-endpoint path partition problem is to find the minimum size of such a path partition. In general, this problem is NP-hard; however, solutions are possible for certain graph classes. This talk will focus on highly structured graph classes. (Received September 20, 2011)