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Ronald J. Gould* (rg@mathcs.emory.edu), Department of Math and Computer Science, Emory University, Atlanta, GA 30322. *Some recent results on strong connectivity.*

In this talk we consider several new developments on strong connectivity questions in graphs. For a fixed multigraph H , possibly containing loops, with $V(H) = \{h_1, \dots, h_k\}$, we say a graph G is H -linked if for every choice of k vertices v_1, \dots, v_k in G , there exists a subdivision of H in G such that v_i represents h_i (for all i). Using a k -matching as the graph H , we obtain the well-known idea of a k -linked graph. An H -immersion in G is similar to H -linkage, except that the paths in G , playing the role of the edges of H , are only required to be edge disjoint. We determine minimum degree conditions for a graph G to contain an H -linkage. We further generalize these results to find conditions for a graph G to contain an H -immersion with a bounded number of vertex repetitions on any choice of k vertices. This talk spans work in several papers and with several sets of coauthors. (Received September 06, 2007)