

1096-05-706

Alexander Halperin* (adh208@lehigh.edu), Department of Mathematics, Lehigh University, 14 East Packer Avenue, Bethlehem, PA 18015. *On semi-linkage with prescribed lengths*. Preliminary report.

Let H be a multigraph, and consider a set $S \subseteq V(H)$. A (simple) graph G is (H, S) -*semi-linked* if every injective function $f : S \rightarrow V(G)$ can be extended into an H -subdivision (called an (H, S) -*semi-linkage*) in G . Let w be a weight function of positive integers $w_e \geq 14$ corresponding to distinct edges $e \in E(H)$. A graph G is (H, S, w) -*semi-linked* if every injective function $f : S \rightarrow V(G)$ can be extended into an (H, S) -semi-linkage in G such that each path corresponding to each edge $e \in E(H)$ has length w_e . We establish a sharp minimum degree condition for a sufficiently large graph G to be (H, S, w) -semi-linked. (Received September 09, 2013)