

1035-Z1-383

Ralph J Faudree, Ronald J Gould, Michael S Jacobson and Colton R Magnant*
(cmagnan@emory.edu). *Distributing Vertices on a Hamiltonian Cycle.*

Let G be a graph of order n and $3 \leq t \leq \frac{n}{4}$ be an integer. Recently, Kaneko and Yoshimoto provided a sharp $\delta(G)$ condition such that for any set X of t vertices, G contains a hamiltonian cycle H so that the distance along H between any two vertices of X is at least $n/2t$. We proved minimum degree and connectivity conditions such that for any graph G of sufficiently large order n and for any set of t vertices $X \subseteq V(G)$, there is a hamiltonian cycle H so that the distance along H between any two consecutive vertices of X is approximately $\frac{n}{t}$. Furthermore, we determined the δ threshold for any t chosen vertices to be appear on a hamiltonian cycle H in a prescribed order, with approximately predetermined distances along H between consecutive chosen vertices. (Received September 05, 2007)