Wu, Wei; **Qi, Zhiru**; **Yuan, Xiuhua**; **Sun, Zhiren**

A sufficient condition for pancyclic graphs. (Chinese. English summary) Zbl 1110.05055

J. Nanjing Norm. Univ., Nat. Sci. Ed. 29, No. 2, 31-34 (2006).

A graph G of order n is pancyclic if it contains a cycle of length k for each $k = 3, 4, \ldots, n$. This paper gives a sufficient condition for a graph to be pancyclic, that is, shows that for any integer $t \geq 2$ and a 2-connected graph with order n and minimum degree $\delta \geq t$, if $|N(u) \cup N(v)| \geq n - t$ for any two vertices with distance two in G, then G is pancyclic unless either $G \cong C_5$ or $G \cong K_{n/2,n/2}$. This improves the result of *J. Xu* in [Acta Math. Appl. Sin. 24, No. 2, 310–313 (2001; Zbl 1003.05069)].

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