1124-05-309 **Ruth Luo*** (ruthluo2@illinois.edu), Dept. of Mathematics, 273 Altgeld Hall, 1409 W. Green St., Urbana, IL 61801, and **Zoltán Füredi** and **Alexandr Kostochka**. *A stability version for a theorem of Erdős on nonhamiltonian graphs.*

Let G be a nonhamiltonian graph on n vertices with minimum degree $\delta(G) \geq d$. In 1962, Erdős proved that G has at most $\max\{\binom{n-d}{2} + d^2, \binom{\lceil (n+1)/2 \rceil}{2} + \lfloor (n-1)/2 \rfloor^2\}$ edges, and there is a class of extremal examples $H_{n,d}$ for each n and $d < n/6$. We prove a stability version of this result: if G is a 2-connected nonhamiltonian graph on n vertices with minimum degree $\delta(G) \geq d$ and more than $\max\{\binom{n-(d+1)}{2} + (d+1)^2, \binom{\lceil (n+1)/2 \rceil}{2} + \lfloor (n-1)/2 \rfloor^2\}$ edges, then G must be a subgraph of the extremal graph $H_{n,d}$. This result is sharp. (Received September 12, 2016)