Pancyclicity when each cycle must pass exactly k Hamilton cycle chords

Fatima Affiff Chaouche

(University of Sciences and Technology Houari Boumediene, Algiers)

We observe that $\Omega(\log n)$ chords must be added to an n-cycle to produce a pancyclic graph; we ask how much this must be increased in order that, given k, $3 \leq k \leq n$, there exists a cycle of each length $\geq k$ which passes exactly k chords. We find that, for fixed k, the bound becomes $\Omega(n^{1/k})$.