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Forbidden subgraphs for chorded pancyclicity. (English) Zbl 1370.05109

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Summary: We call a graph G pancyclic if it contains at least one cycle of every possible length m , for $3 \leq m \leq |V(G)|$. In this paper, we define a new property called chorded pancyclicity. We explore forbidden subgraphs in claw-free graphs sufficient to imply that the graph contains at least one chorded cycle of every possible length $4, 5, \dots, |V(G)|$. In particular, certain paths and triangles with pendant paths are forbidden.

MSC:

05C38 Paths and cycles

Keywords:

pancyclic; chorded cycle; forbidden subgraph; Hamiltonian

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