

# Forbidden Subgraphs That Imply 2-Factors With A Specified Number of Components

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## **Abstract**

The connected forbidden subgraphs and pairs of connected forbidden subgraphs that imply that any (or a sufficiently large) 2-connected graph is hamiltonian have been characterized. Similar theorems that involve an enlarged collection of forbidden subgraph pairs that imply the existence of 2-factors have been proved, and a characterization has been given for all graphs. In this paper, a characterization of connected forbidden subgraphs and pairs of connected forbidden subgraphs that imply the existence of 2-factors with a predetermined number of components will be proved.