

DISSERTATION
DEFENSE

*Hamiltonicity and Pancyclicity of 4-connected, Claw- and
Net-free Graphs*

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Abstract: A well-known conjecture by Manton Matthews and David Sumner states, that every 4-connected $K_{1,3}$ -free graph is hamiltonian. The conjecture itself is still wide open, but several special cases have been shown so far. We will show, that if a graph is 4-connected and $\{K_{1,3}, N\}$ -free, where $N = N(i, j, k)$, with $i + j + k = 5$ and $i, j, k \geq 0$, the graph is pancyclic.

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