
BEN SEAMONE, Dawson College

Hendry's Conjecture: counterexamples and new open problems

Let G be a graph G of order n . If the vertices of any (non-Hamiltonian) cycle C are contained in a cycle of length one greater, G is *cycle extendable*. Hendry conjectured that every chordal graph containing a Hamiltonian cycle is cycle extendable. We disprove this conjecture with an infinite family of graphs. We discuss additional properties one may require in order for the original conjecture to hold and present several open questions (and partial solutions) involving strongly chordal graphs, induced subgraphs, connectivity and toughness, intersection models, and graph density. Joint with Manuel Lafond (Université de Montréal).