Have You Ever Meta-Conjectured?

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The study of cycles has a long and varied history. In 1971, Bondy noted a tie linking hamiltonian graphs and pancyclic graphs. He stated his famed meta-conjecture: Almost any nontrivial condition on a graph which implies that the graph is Hamiltonian also implies that the graph is pancyclic. There may be some simple family of exceptional graphs.

A chord of a cycle C is an edge between two non-consecutive vertices of C. A cycle is said to be chorded if it induces at least one chord. In this talk I will extend Bondy's meta-conjecture in several ways to a broader class of cycle problems in graphs, namely to finding conditions that imply the existence of various types of chorded cycles. I will offer supporting results to each new meta-conjecture.

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