Combinatorics Seminar

Have you Ever Meta-Conjectured?

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Abstract: The study of cycles in graphs has a long history. In 1971 A. Bondy noted a tie linking hamiltonian graphs and pancyclic graphs. He stated his famous meta-conjecture: Almost any nontrivial condition on a graph which implies the graph is hamiltonian also implies the graph is pancyclic. There may be some simple family of exceptional graphs. A cycle contains a chord if there exists an edge between two vertices of the cycle that is not an edge of the cycle. A cycle is said to be chorded if it has one or more chords. 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 chorded cycles in graphs. I will offer supporting evidence to these meta-conjectures.

Wednesday, October 4, 2023, 4:00 pm Mathematics and Science Center: MSC E406

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