

# Mathematics Department Colloquium

**Speaker:** Jonathan Tyler, research student of Dr. Hieu Nguyen

**Title:** Structural Results for Hamiltonian Paths in Cographs

**Date and Time:** Wednesday, November 18, 2020 at pm

**Place:** The colloquium is held on **Google Meet** at [meet.google.com/zqg-xckf-iov](https://meet.google.com/zqg-xckf-iov)

**Abstract:** The Hamiltonian path problem is a well-known NP-complete graph theory problem which is to determine whether or not it is possible to find a path through all the vertices of a graph, visiting each vertex exactly once. A cograph, or complement-reducible graph, or  $P_4$ -free graph, is a graph that can be generated from the single-vertex graph  $K_1$  by complementation and disjoint union. In this talk I will present properties of cographs that guarantee the existence of Hamiltonian paths.