

Combinatorics Seminar

Thursday, January 19, 2012

2:00 pm in Hume 331

Longest Cycles in Graphs with Given Independence Number and Connectivity

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ABSTRACT

The Chvátal–Erdős Theorem states that every graph whose connectivity is at least its independence number has a spanning cycle. In 1976, Fouquet and Jolivet conjectured an extension: If G is an n -vertex k -connected graph with independence number a , and $a \geq k$, then G has a cycle of length at least $\frac{k(n+a-k)}{a}$. In this talk, we will introduce some results related to this conjecture and present some ideas on how we prove this conjecture.

This is a joint work with Suil O and Douglas B. West.