

Combinatorics Seminar

Wednesday, Feb. 25, 2004

2:30pm in Hume 331

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An extremal problem for contractible edges in 3-connected graphs

ABSTRACT

Let G be a simple 3-connected graph with at least five vertices. Tutte showed that G has at least one contractible edge. Thomassen gave a simple proof of this fact and showed that contractible edges have many applications. Contractible edges have been studied by many authors. Recently Wu proved that a simple 3-connected graph G with at least five vertices has at most $\frac{|V(G)|}{5}$ vertices that are not incident to contractible edges. In this talk, we will present a characterization of all simple 3-connected graphs with exactly $\frac{|V(G)|}{5}$ vertices that are not incident to contractible edges.