# Combinatorics Seminar 

# Domination in 3-edge-colored complete graphs 

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#### Abstract

Erdos, Faudree, Gould, Gyarfas, Rousseau and Schelp proved that for every complete graph of order $n$ with edges colored with three colors, there exist a set $X$ of 22 vertices and a color $c$ such that the number of vertices in $X$ or joined to a vertex of $X$ by an edge of color $c$ is at least $2 n / 3$. They also conjectured that the bound of 22 can be lowered to 3 . We improve the bound to 4.

The talk is based on joint work with Chun-Hung Liu, Jean-Sebastien Sereni, Peter Whalen and Zelealem Yilma.


Friday, April 19, 2013, 4:00 pm
Mathematics and Science Center: W303

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