University of Puerto Rico Mayaguez Campus
Faculty of Arts and Sciences
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THE DEPARTMENT OF MATHEMATICAL SCIENCES PROUDLY PRESENTS

COLLOQUIUM

SPRING 2013

How Al Qaeda Can Use Lattice Theory to Defeat the United States

Extending the 2012 *Journal of Graph Theory* article by Campos, Chvátal, Devroye, and Taslakian

Dr. Jonathan Farley
Research Institute for Mathematics

March 15th, 2013

ABSTRACT

In May 2012, the *Journal of Graph Theory* published an article by esteemed combinatorialist Vašek Chvátal and three computer scientists from McGill University, Campos, Devroye, and Taslakian. They studied the following Problem. Consider connected posets, or more generally acyclic directed graphs, with *n* vertices and *M* sources, such that the outdegree of each node is at most *b*. Which graphs have the fewest cutsets?

Chvátal et al. resolved what they called my "nice conjecture" for the class of trees. Modeling terrorist cells as finite partially ordered sets, this talk determines the structure of the terrorist cell most likely to remain intact if a subset of its members is captured at random, provided that the cell has a single leader and no member has more than 2 immediate subordinates.

Monzón Building, Room 201, 10:45 AM
Refreshments will be served
15 minutes before the colloquium, M203