

# VCU Discrete Mathematics Seminar

## *Chromatic number and cycles in graphs*

**Prof Jacques Verstraete**  
**University of California, San Diego**  
**(UCSD)**

Tuesday, Feb. 23

12:30-1:20

4145 Harris Hall

One of the popular topics in graph theory is the interplay between cycles and proper colorings of graphs. Many of the main results are motivated by applications to other areas, such as in Ramsey theory, geometry, and algebraic topology. In this talk, I will discuss the relationship between chromatic number and cycles in graphs, and along the way, I will give a proof of a conjecture of Erdős on cycles in triangle-free graphs of large chromatic number.

In part joint work with Alexandr Kostochka and Benny Sudakov.



For the DM seminar schedule, see:

<http://www.people.vcu.edu/~dcranston/DM-seminar/>