

# VCU Discrete Mathematics Seminar

## *Separating the Tree-Chromatic Number from the Path-Chromatic Number*

**Prof Heather Smith**  
**Davidson College**

Tuesday, Oct. 15  
12:30-1:20 (*special day and time!*)  
4145 Harris Hall



Seymour (2016) defined the path-chromatic number and tree-chromatic number of a graph, noting that the tree-chromatic number is at most the path-chromatic number. We utilize a “Ramsey Theory” for binary trees to show that these parameters can be separated, giving a family of graphs which have tree chromatic number at most 2 and unbounded path-chromatic number. This is joint work with Fidel Barrera-Cruz, Stefan Felsner, Tamás Mészáros, Piotr Micek, Libby Taylor, and William T. Trotter.

For the DM seminar schedule, see:

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