



*The rising STAR of Texas*

Discrete Mathematics Seminar

Time: Friday, November 1, 2019, 2:15-3:15 PM  
Room: 330 Derrick Hall  
Title: The Brauer graph of a block of a solvable group  
Speaker: Dr. James Cossey, Department of Mathematics, University of Akron

Abstract:

One of the many equivalent ways to define a  $p$ -block  $B$  of a finite group  $G$  is as a connected component of the Brauer graph. However, surprisingly little is known about the structure of these graphs. In this talk we discuss some recent developments for blocks of solvable groups. We will see that (unlike in the case where  $G$  is arbitrary) if  $G$  is solvable, then there is a universal upper bound on the diameter of the Brauer graph. Along the way we will encounter several “large orbit” theorems for solvable groups.