Auburn University Montgomery

Department of Mathematics

Colloquium/$\mathcal{MAMS}$

Time: Friday, November 3, 2006, 2:00pm

Place: Auburn University Montgomery, Goodwyn Hall, Room 202

Speaker: Mark Motley, NSA

Title: Finite p-Groups Contained in Aut$(k((x)))$

Abstract:

Let k be a perfect field of characteristic $p > 0$. Then it can be shown that for each finite p-group G of order p^n there is a subfield K of the Laurent series field $k((x))$ so that $k((x))/K$ is a finite Galois extension with Galois group G. K is necessarily of the form $k((ux^{p^n}))$, where u is a unit in the ring $k[[x]]$. We will explore the relationship between u and G, presenting some results and directions for further research.

Refreshments will be served at 2:00pm; colloquium begins at 2:30pm.