Auburn Montgomery

Department of Mathematics

Colloquium/$\mathcal{MAMS}$

Time: Friday, March 28, 2008, 2:00pm

Place: Auburn University Montgomery, Goodwyn Hall, Room 202

Speaker: James E. Carter, The College of Charleston

Title: The Galois Module Structure of Algebraic Integers

Abstract:

An algebraic number field K is a finite field extension of the field of rational numbers $\mathbf{Q}$. Inside K is the ring of algebraic integers A. For example, when $K = \mathbf{Q}$, A is the ring of ordinary rational integers. When L/K is a Galois extension of algebraic number fields with Galois group G, then the ring of integers B in L can be regarded as a module over various rings in the group ring KG. An important problem is to determine when B is a free such module. We will talk about some recent results regarding this problem.

****Refreshments will be served at 1:30p****