Meeting: 1004, Bowling Green, Kentucky, SS 9A, Special Session on L-Functions

1004-11-239 **Mark Dickinson*** (dickinsm@pitt.edu). *Artin's conjecture and the failure of multiplicity one.* Preliminary report.

In the 1920's Emil Artin described how to attach an L-function to a finite-dimensional complex representation of the absolute Galois group of a number field. He furthermore conjectured that this L-function should be holomorphic except possibly at $s = 1$.

I will discuss some approaches to Artin's conjecture for the classical case of two-dimensional odd complex representations of the absolute Galois group of the rationals, and in particular the case where the image of the restriction of the Galois representation to a decomposition group at p lies in the scalars. (Received January 25, 2005)