**Meeting:** 1005, Newark, Delaware, SS 9A, Special Session on Arithmetic Groups and Related Topics

1005-11-41 **Marcin Mazur*** (mazur@math.binghamton.edu), Department of Mathematics, Binghamton University, PO Box 6000, Vestal, NY 13892-6000. *Finite Galois stable groups of matrices.*

In this talk I will discuss the following problem: given a global (or local) field $K$, its ring of integers $S$ and a finite Galois extension $L$ of $K$, describe the finite groups of matrices with entries in the integral closure of $S$ in $L$, which are preserved by the action of the Galois group of $L$ over $K$. I will review the conjectures (due to Kitaoka, Fontaine, Abrashkin, ...) related to this problem and discuss some partial results (work in progress). (Received January 18, 2005)