

Meeting: 1002, Pittsburgh, Pennsylvania, SS 14A, Special Session on Modularity of Galois Representations and Serre's Conjecture

1002-11-47 **R Ramakrishna*** (ravi@math.cornell.edu), Math Department, Cornell University, Ithaca, NY 14853-4201. *Dual Selmer Groups and the number of congruent eigenforms.*

In this talk I'll report on joint work with M. Larsen and C. Khare on dual Selmer groups. As an application I will give examples of trivial completed Hecke algebras associated to a modular mod p Galois representation and a finite set of primes Q such that the 'new at Q ' completed Hecke algebra is not trivial. Thus there are at least two 'new at Q ' newforms with whose residual Galois representations are the original mod p modular representation. (Received July 22, 2004)