

abstract

JOINT IAS/PU NUMBER THEORY SEMINAR

Topic:

Speaker:

Affiliation:

Date:

Time/Room:

I will describe recent generalizations of mine to a theorem of Harris, Shepherd-Barron, and Taylor, showing that have certain Galois representations become automorphic after one makes a suitably large totally-real extension to the base field. The main innovation is that the result applies to Galois representations to GL_n , where the previous work dealt with representations to Sp_n ; I can also dispense with certain congruence conditions which existed in the earlier work, and work over a CM, rather than a totally-real, field. The main technique is the consideration of the cohomology the Dwork hypersurface, and in particular, of pieces of this cohomology other than the invariants under the natural group action.