

abstract

IAS/PRINCETON NUMBER THEORY SEMINAR

Topic:

Speaker:

Affiliation:

Date:

Time/Room:

Let f be a primitive cusp form of weight at least 2, and let ρ_f be the p -adic Galois representation attached to f . If f is p -ordinary, then it is known that the restriction of ρ_f to a decomposition group at p is 'upper triangular'. If in addition f has CM, then this representation is even 'diagonal'. In this paper we provide evidence for the converse. More precisely, we show that the local Galois representation is not diagonal, for all except possibly finitely many of the arithmetic members of a non-CM family of p -ordinary forms. We assume p is odd, and work under some technical conditions on the residual representation. We also settle the analogous question for p -ordinary Λ -adic forms, under similar conditions. This is joint work with Vinayak Vatsal.