

Speaker: Eknath Ghate, Tata Institute.

Title : On the Local Behaviour of Ordinary Galois Representations

Abstract:

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 ordinary at p , 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 talk we provide evidence for the converse. More precisely we show that under some technical conditions, 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.

This is joint work with Vinayak Vatsal.