



ICTS Colloquium

Title : Reductions of Galois Representations and the theta operator.

Speaker : Eknath Ghate, Tata Institute of Fundamental Research, Mumbai

Date : Monday, February 11, 2019

Time : 2:30 PM

Venue : Emmy Noether Seminar Room, ICTS Campus, Bangalore

Abstract : Galois representations arise in many problems in number theory. For some years, my coauthors and I have been engaged in studying the reductions of local Galois representations, using various Langlands correspondences. Now that these reductions are known in many cases of small slopes, one might ask if there are some general principles which are beginning to emerge. In this talk I would like to explain one such general principle involving the theta operator, which was discovered recently (jointly with A. Kumar). The principle allows one to deduce the shape of some of the reductions in slope $(v + 1)$ from the shape of the reductions in slope v .