Math 209 - Number Theory Seminar

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Unobstructed Galois deformation problems associated to GSp(4)

Abstract:

To a cuspidal automorphic representation of GSp(4) over $\mathbb{Q}$, one can associate a compatible system of Galois representations $\{\rho_p\}_{p \text{ prime}}$. For $p$ sufficiently large, the deformation theory of the mod-$p$ reduction $\overline{\rho}_p$ is expected to be unobstructed – meaning the universal deformation ring is a power series ring. The global obstructions to deforming $\overline{\rho}_p$ is controlled by certain adjoint Bloch-Kato Selmer groups, which are expected to be trivial for $p$ large enough.

I will talk about some recent results showing that there are no local obstructions to the deformation theory of $\overline{\rho}_p$ for almost all $p$.

This is joint work with M. Broshi, C. Sorensen, and T. Weston.

Special Note:
Pre-talk 1:30pm

Host: Kiran Kedlaya

Thursday, February 18, 2021
2:00 PM
Location: See
https://www.math.ucsd.edu/~nts/