Hecke algebras modulo p

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Tea and cookies in MCS 144 at 4:00 pm

Abstract: Recently, Joël Bellaïche and Chandrashekhar Khare studied structure of local components of Hecke algebras acting on modular forms modulo primes $p \geq 5$ of level 1 and proved that they have Krull dimension at least 2, establishing the equality under certain assumptions. In this talk, I will first explain their method and then show how to generalize their results to Hecke algebras acting on modular forms modulo p of level $\Gamma_0(N)$, $\Gamma_1(N)$ where $p \geq 5$ and $(p, N) = 1$.