Philadelphia Area Number Theory Seminar

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Intersections of components of Emerton-Gee stack for GL_2

Abstract: The Emerton-Gee stack for GL_2 is a stack of (φ, Γ)-modules of rank two. Its reduced part, X, is an algebraic stack of finite type over a finite field, and it can be viewed as a moduli stack of mod p representations of a p-adic Galois group. We compute criteria for codimension one intersections of the irreducible components of X. We interpret these criteria in terms motivated by conjectural categorical p-adic and mod p Langlands correspondence. We also give a cohomological criterion for the number of top-dimensional components in a codimension one intersection.

Wednesday, April 26, 2023
2:00–4:00 PM

Temple University
Tuttleman Hall, Room **404**

Informal refreshments at 2:00PM – Talk at 2:30PM