

Title: Moduli stacks of local Galois representations

Abstract: In this talk I will describe an ongoing project with Toby Gee, whose goal, for any finite extension K of \mathbb{Q}_p and any choice of dimension d , is to construct an equidimensional Artin stack over \mathbb{F}_p whose \mathbb{F}_p -bar points parameterize homomorphisms of G_K into $GL_n(\mathbb{F}_p\text{-bar})$. Our construction will give a qualitative explanation of certain phenomena observed in the theory of reduction of potentially semistable Galois representations. It will also have relations to the Breuil--Mezard conjecture, and other aspects of the p -adic Langlands program, as I hope to explain.

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