

GALOIS REPRESENTATIONS AND AUTOMORPHIC FORMS SEMINAR

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Non-abelian Lubin-Tate Theory Modulo ℓ

Speaker Jean-Francois Dat

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Date: Thu, 10/21/2010 - 14:15 - 15:15

Location: S-101

Let p and ℓ be two distinct prime numbers, and fix a positive integer d . I will explain how the F_ℓ -cohomology complex of the Lubin-Tate tower of height d of a p -adic field K realizes mod ℓ versions of both the semi-simple Langlands correspondence for $GL_d(K)$ and the "Langlands-Jacquet" transfer from $GL_d(K)$ to the central division K -algebra of invariant $1/d$. Then I will give an explicit description of the supercuspidal part of the integral ℓ -adic cohomology of this LT tower in terms of certain universal deformations. Finally, I will speculate about how to get a cohomological realization of the full Langlands correspondence mod ℓ , including the mysterious nilpotent part of this correspondence. My current attempt involves a certain equivariant Lefschetz operator on the cohomology complex.

event_id: 40219

Calendar: 369

Video: <http://video.ias.edu/galois/dat>

terms:

- [Galois Representations and Automorphic Forms](#)