

MODULI SPACE OF RIGID ANALYTIC (Φ, Γ) -MODULES AND SPACES OF OVERCONVERGENT p -ADIC AUTOMORPHIC FORMS (1 HOUR)

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Due to the work of Kisin, Colmez, Bellaïche-Chenevier and others it is a long-standing expectation that the Hecke-eigensystems that occur in the space of finite slope overconvergent p -adic automorphic forms can be described purely in Galois-theoretic terms. The emerging categorical perspective in the p -adic Langlands program makes it possible to give a Galois theoretic description of the space of finite slope overconvergent p -adic automorphic forms itself together with its Hecke-action. In particular this also incorporates multiplicities of the eigenspaces. This Galois-theoretic description involves rigid analytic stacks of (Φ, Γ) -modules (or equivalently of equivariant vector bundles on the Fargues-Fontaine curve). I will discuss the general conjecture and then focus on the example of the modular curve and of (definite) unitary groups in three variables.