Conferencia

Counting local systems with local principal unipotent monodromy

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Resumen:

We compute, jointly with P. Deligne, the number of equivalence classes of irreducible rank n ell-adic local systems on the geometric X-S, namely n-dimensional l-adic representations of π_1 (geometric(X-S)), invariant under the Frobenius, whose local monodromy at each point of S is a single Jordan block of rank n. Here X is a smooth projective absolutely irreducible curve over the finite field of cardinality q, S a finite set of closed points of X of cardinality N>1, l a prime with (l,q)=1, and n>1 an integer.