Séminaire de théorie des nombres

Le 10 février 2003 à 14h15

Congruence and product formula for local constants

Exposé de Seidai Yasuda

Résumé : The theory of local ϵ-factors is generalized in the following way. Let K be a complete discrete valuation field whose residue field k is perfect of positive characteristic p. Let W_K be the Weil group of K. For each triple $(R, (\rho, V), \psi)$, where R is a noetherian local ring with algebraically closed residue field of characteristic $\neq p$ such that the p-power map $R^\times \to R^\times$ is surjective, (ρ, V) is a continuous representations of W_K on a finitely generated free R-module V, and $\psi : K \to R^\times$ is a non-trivial additive character sheaf, I defined the local ϵ_0-character $\epsilon_{0,R}(V, \psi)$ of $(R, (\rho, V), \psi)$ and discussed its basic properties. As applications, I generalized Deligne-Laumon's product formula describing the determinants of cohomologies of l-adic etale sheaves on curves over finite fields, and Saito's formula for describing the determinants of cohomologies of tamely ramified l-adic etale sheaves on varieties over finite fields, to the case of Λ-sheaves for pro-finite rings Λ.