Philadelphia Area Number Theory Seminar

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Galois Module Structure of Lubin-Tate Modules

Abstract: Consider a nite, unrami ed extension E of the p-adic numbers $\mathbb{Q}_p$ with p odd, and let F_n be the eld obtained by adjoining a primitive p^n-th root of unity to E. Shari has produced explicit generators and relations for the multiplicative group of F_n as a module over the $\mathbb{Z}_p$-group ring of $\mathrm{Gal}(F_n / \mathbb{Q}_p)$. Furthermore, he gives generators for the submodules in the principal unit ltration; these may be used to compute conductors of abelian extensions of F_n. I will outline Shari 's method and discuss progress