

Philadelphia Area Number Theory Seminar

Bharathwaj Palvannan
University of Pennsylvania

On free resolutions of Iwasawa modules

Abstract: The topic of the talk is related to non-commutative Iwasawa theory and is motivated by certain (conjectural) integrality properties of the p -adic L -function. We will discuss certain non-primitive Iwasawa modules that have a free resolution of length one over the completed group ring $\mathbb{Z}_p[[H \times \Gamma]]$. Here, H is the Galois group of a finite Galois extension L/K of totally real fields and Γ is the Galois group of the cyclotomic extension K_∞/K . If time permits, we will consider an application of this result involving an elliptic curve E over \mathbb{Q} with a cyclic isogeny of degree p^2 . This is joint work with Alexandra Nichifor.

Wednesday, January 25, 2017
2:40–4PM

Bryn Mawr College
Department of Mathematics
Park Science Center **328**

Tea and refreshments at 2:20PM in Park 355