Philadelphia Area Number Theory Seminar

Joe Kramer-Miller
Lehigh University

Geometric Iwasawa theory

Abstract: Iwasawa theory studies the variation of arithmetic invariants in p-adic Lie towers of global elds. The traditional focus of Iwasawa theory has been towers of number elds. For example, a classical theorem of Iwasawa states that the p-primary part of the class group grows with remarkable regularity along a Z_p-tower of number elds. The function eld case is much less understood and gives rise to new complications: There are far more towers of function elds than there are of number elds! In this talk we will discuss various programic conjectures on the variation of invariants (e.g. Newton polygons and a-numbers) along p-adic towers of function elds. We will also discuss progress towards these conjectures.

Thursday, April 14, 2022
3:25 { 4:45 PM

Swarthmore College
Department of Mathematics and Statistics
Science Center **149**
Informal refreshments at 3:10PM