Philadelphia Area Number Theory Seminar

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Counting Local Systemson SupersingularAbelian Varieties

Abstract: Given a supersingularabelian variety A de ned over an algebraically closed eld of characteristic p, we count the number of homomorphismsfrom the etale fundamental group of A to $GL_n(q)$, where q is a power of p. This count (for xed n) turns out to be a polynomial in q. We will give a somewhatcomplicated formula for this polynomial, then state a few theoremswhich elucidate its features, including a new result about semidirect products of pro nite groups.

Thursday, September17, 2015
2:40{4:00PM

Bryn Mawr College
Department of Mathematics
Park ScienceCenter 328
Tea and refreshmentsat 2:20PM in Park 355