

In this talk, we'll focus on constant subvarieties X of an abelian variety A defined over the function field K of a curve over a finite field. This allows us to consider covers of X that arise from isogenies on A , such as the Frobenius isogeny which gives rise to Frobenius descent. We'll describe the information this descent captures about rational points for certain surfaces and higher dimensional varieties and give an interpretation in terms of morphisms between varieties over the finite field. This approach results in a bound on the number of "non-horizontal" K -rational points on the symmetric square of a curve satisfying suitable hypotheses. This is joint work with Felipe Voloch.