

Splitting of Abelian varieties

Abstract: Let f be a monic irreducible polynomial with integer coefficients. Does there exist a prime p for which $f \pmod{p}$ remains irreducible? This question was studied classically and the answer is no. In this talk, we will begin by explaining what is behind this pathology and study a geometric analogue of the question. This analogue reveals a new local-global problem. In some cases, we are able to answer the geometric question.