

Frey's method and ternary Diophantine equations

Abstract:

We will show how Frey's method (as exposed by Darmon on Friday morning) can be applied to a large class of generalised Fermat equations. Namely, we will prove the following theorem of Halberstadt-Kraus : Let a, b, c be pairwise coprime odd integers. Then if p belongs to a set of primes of positive density, the equation $ax^p + by^p + cz^p = 0$ has only trivial solutions.