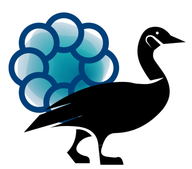
Solvable points on higher genus curves

James Rawson

Week 5 - Term 1

WARWICK MATHEMATICS



POSTGRADUATE SEMINAR

Abstract

Much of modern number theory is focused on trying to solve equations in the rational numbers. One case of interest is when the equations define a curve, where it turns out that the structure of the solutions is determined by a geometric invariant, the genus. Falting's theorem shows that if the genus is greater than 2, there are at most finitely many solutions. There are few results when the values of the solutions are allowed to be more general.

This talk will focus on the case where the solutions are expressible in terms of addition, multiplication and nth-roots. I will review the background content from number theory (such as Galois groups) and algebraic geometry (mostly the concept of varieties).

Time

12 pm, 2nd November 2022

Location

Room B3.02

Organisers

Alvaro Gonzalez Hernandez
Katerina Santicola