Recent Progress on Diophantine Equations in Two Variables

Minhyong Kim (University of Warwick)

Abstract

The study of rational or integral solutions to polynomial equations $f(x_1, x_2, ..., x_n) = 0$ is among the oldest subjects in mathematics. After a brief description of its modern history, we will review a few of the breakthroughs of the last few decades and some recent geometric approaches to describing sets of solutions when the number of variables is 2.