The Diophantine Equation $x^2 + C = y^n$

Jesús Fabian Muñoz Pomeo

Universidade de Brasília

19/11/2018
10:00 Hours
MAT Auditorium-UnB

Abstract

In this talk, we will present some results on Diophantine equations obtained by *P. Xiaowei-2003* and *A.Bérczes and I. Pink-2012*. In particular, we will discuss how the Lucas sequences were applied to find the solutions of the diophantine equations $x^2 + d^{2l+1} = y^n$ and $x^2 + p^{2m} = y^n$, where p is prime, $gcd(x,y) = 1$, $n > 3$, $l \geq 0$, $m > 1$.