

CRG Seminars on L -functions

Wednesday, April 10, 2024
12:00 to 1:00 p.m. in M1040

Online Registration Link:

https://uleth.zoom.us/meeting/register/tJArc-ytrDgsGN2cMhZtzm1tH70otuPY0s_0#/registration

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Bounds on the Number of Solutions to Thue Equations

In 1909, Thue proved that when $F(x, y)$ is an irreducible, homogeneous, polynomial with integer coefficients and degree at least 3, the inequality $|F(x, y)| \leq h$ has finitely many integer-pair solutions for any positive h . Because of this result, the inequality $|F(x, y)| \leq h$ is known as Thue's Inequality. Much work has been done to find sharp bounds on the size and number of integer-pair solutions to Thue's Inequality, with Mueller and Schmidt initiating the modern approach to this problem in the 1980s. In this talk, I will describe different techniques used by Akhtari and Bengoechea; Baker; Mueller and Schmidt; Saradha and Sharma; and Thomas to make progress on this general problem. After that, I will discuss some improvements that can be made to a counting technique used in association with "the gap principle" and how those improvements lead to better bounds on the number of solutions to Thue's Inequality.

EVERYONE IS WELCOME!

Organizers: Kübra Benli, Fatma Çiçek, Ertan Elma, Paul Péringuey. Visit the seminar web page at <https://sites.google.com/view/crgl-functions/crg-weekly-seminar?authuser=0>



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