

Zi Gong asked, saying, “Is there one word that may serve as a rule of practice for all one’s life?” The Master said, “Is not reciprocity such a word?”

-Confucius, Analects

The Trivial Notions Seminar
Proudly Announces

Spaces of lattices and reciprocity laws

A talk by
George Boxer

Abstract

Given a polynomial $f \in \mathbb{Z}[x]$ and a prime p we can ask: how many solutions does f have mod p ? An answer to this question for a fixed f and many primes p is called a reciprocity law for f . Gauss’s quadratic reciprocity law treats the case when f is quadratic. The search for generalizations of quadratic reciprocity has occupied number theorists for centuries, and the story is very far from over. In this talk I will introduce some reciprocity laws found inside the space of lattices in \mathbb{R}^n and give some “concrete” examples.

Thursday, October 2nd, at 1:15 pm
Science Center 222