

“It is fine to work on any problem, so long as it generates interesting mathematics along the way - even if you do not solve it at the end of the day. ”

— Andrew Wiles

The Trivial Notions Seminar
Proudly Announces

Hyperelliptic Modular Curves

A talk by
Chi-Yun Hsu

Abstract

Given an elliptic curve defined over a number field, Mordell-Weil theorem says that the set of rational points form a finitely generated abelian group, the Mordell-Weil group. It is then natural to ask what the possible torsion parts and ranks are. In 1978 Mazur classified all the possible torsion parts that may occur in the Mordell-Weil group of an elliptic curve over \mathbb{Q} . For elliptic curves over number fields of higher degree, one approach to the classification of the torsion parts is to study the gonality of modular curves. In this talk we will focus on Ogg's result of determining all the 19 modular curves $X_0(N)$ which are hyperelliptic, namely the gonality 2 case.

Wednesday, February 17th, at 12:00 pm
Science Center 222