"That which is looked at yet never seen is known as invisible, That which is listened to yet never heard is known as soundless, And that which is grasped yet never touched is known as intangible. The origin of these three can not be observed, so mix them and form a unity. Above, it is not lit; Below, it is not dark. The Dao cannot be named by common rules, as it returns to its origin, It is the shape of the original shape, the image of the original object, This is blur and profound. Step forward, cannot see its beginning; Follow it, cannot see its end. Hold the ancient Dao to know the present things, and thus know the ancient beginnings, This is the principle of the Dao."

— Chapter 14 of Tao Te Ching by Lao Tzu

The Trivial Notions Seminar
Proudly Announces

Galois coverings of an algebraic curve

A talk by
Koji Shimizu

Abstract

The fundamental group of Riemann surfaces is well known. In particular, we understand which finite group can arise as a covering transformation group of a Riemann surface. In this talk, we will discuss a similar problem for algebraic curves over an algebraically closed field. If our field is the field of complex numbers, we can use the above topological argument. If the characteristic of the field is positive, then new phenomena show up, and the problem becomes more interesting. In this setting, the group-theoretic condition of possible finite groups was conjectured by Abhyankar, and we will study this conjecture in the latter part of the talk.

Wednesday, February 10$^{\text{th}}$, at 12:00 pm
Science Center 222