

“If there is one thing in mathematics that fascinates me more than anything else (and doubtless always has), it is neither “number” nor “size,” but always form. And among the thousand-and-one faces whereby form chooses to reveal itself to us, the one that fascinates me more than any other and continues to fascinate me, is the structure hidden in mathematical things.” – Alexander Grothendieck

The Trivial Notions Seminar  
Proudly Announces

Point-counting via cut-and-paste

A talk by  
Changho Han

**Abstract**

How to count number of solutions to several polynomial equations over finite fields? This question is deep and largely unknown, but it has driven the subject of both geometry and number theory in great depth. In this talk, we will use a naive approach: cut and paste the space of solutions into manageable pieces! For certain examples, this approach allows us to count points over various finite fields of different characteristics simultaneously. We will use this as an excuse to explore how this approach is also related to understanding topology and Hodge theory of the spaces.

Thursday March 30<sup>th</sup>, at 12:00 pm  
Science Center 232