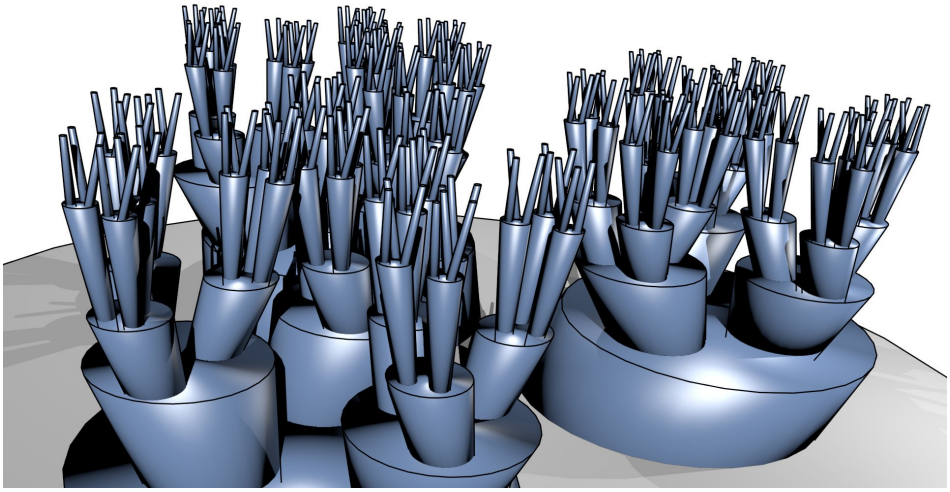
When Working mod p Isn't Enough

Undergraduate Math Club
CORNELL UNIVERSITY



SPEAKER

Jake Januzelli

ABSTRACT

A fundamental idea in number theory is to, given some equation, reduce it modulo some number. This is a fertile source of information: this is how one tells that, for example, every prime greater than 2 that is the sum of two squares must be 1 mod 4. The subject of this talk will be the p-adic integers, which give us a way to leverage all of this information about a equation modulo some numbers. I'll go over a few definitions, some basic properties, and hopefully the above picture, which depicts the metric on the 3-adic integers.

MAR 25 at 5:15pm

Malott 532 ⋆ Refreshments