The Trivial Notions Seminar
Proudly Announces

Weil and Dwork

A talk by

Sasha Petrov

Abstract

The famous proof of the Weil conjectures about the zeta-function of varieties over finite fields by Grothendieck and Deligne was preceeded by an "elementary" proof of the first part of the conjectures by Dwork. He managed to prove that the zeta function of a variety over a finite field is rational (in particular, once you know the numbers $\#X(\mathbb{F}_q^n)$ for a certain finite set of n's, the numbers of points over all other extensions of $\mathbb{F}_q$ can be computed by a linear recursive formula) using some observations from p-adic analysis. If there is time, we might also take a look at how this proof fits into the cohomological approach to the Weil conjectures.

Friday, March 15$^{\text{th}}$, at 1:00 pm
Science Center 530