

Stanford Department of Mathematics Colloquium

Friday, May 14

4:00 p.m.

Bldg. 380, Room 380-C.

(Note the special date, time, and room!)

**Variation with p of the number of solutions mod p
of polynomial equations**

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Abstract

Let $f = (f_1, f_2, \dots)$ be a family of polynomials in several variables, with coefficients in \mathbf{Z} . If p is a prime number, let $N(f; p)$ be the number of solutions mod p of the system of equations $f(x) \equiv 0 \pmod{p}$. We shall discuss the way $N(f; p)$ varies with p : closed formulae, computability, size, congruence properties, relations with topology, etc.

<http://math.stanford.edu/coll/0910/>