"There is no geometric possibility so horrible that it cannot be found generically on some components of some Hilbert schemes."

-Harris and Morrison, Moduli of Curves, 1998

The Trivial Notions Seminar
Proudly Announces

Murphy's law in algebraic geometry

A talk by

Francesco Cavazzani

Abstract

Deformation theory is one of the main branches of algebraic geometry - the idea that isomorphism classes of algebraic varieties can be represented as points of another algebraic variety. There is a problem then: as soon as we leave the most simple situations, these deformation spaces can become as badly singular as one could imagine. This result has been called the Murphy's Law of algebraic geometry, and has been made precise by a beautiful paper of Ravi Vakil from 2004. I will give an overview of this result and a sketch of the proof; time permitting, I will try to show you a concrete example of a singular deformation space. The talk will be very Italian style.

Thursday, October 9th, at 1:15 pm
Science Center 222