

The Oliver Club

www.math.cornell.edu/~oliver/

Michael Stillman, Cornell University

Mapping the Hilbert Scheme: A Computational View

Hilbert schemes, originally introduced by Grothendieck, are sets which parametrize algebraic zero sets with given numerical data (such as dimension and degree). Hilbert schemes are used in many constructions in algebraic geometry. Computational algebra can be used to study these spaces, as a Groebner basis of an ideal gives rise to a path on a Hilbert scheme.

In this talk, which will assume no algebraic geometry (or Groebner bases), we will bring all of this to life, and we will discuss some of the remarkable combinatorial features of these spaces and present open problems.



Thursday, February 4, 2010
at 4:25 PM in 406 Malott Hall

Refreshments will be served at 3:55 PM in the Mathematics Department lounge (532 Malott Hall).