

# Stanford Algebraic Geometry — Seminar —

## ALGEBRAIC GEOMETRY AND STRING PHENOMENOLOGY

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### Abstract

We review one application of Algebraic Geometry in String Theory: The construction of physically viable theories. We will recall the physical requirements of Heterotic string theory and describe a precise problem in algebraic geometry to be solved. We will present a particular example and how a combination of tools and ideas from algebraic geometry (relative Fourier-Mukai transforms, the spectral construction, compactification of various moduli spaces) were extended and used to try to find solutions. Some promising examples are discussed.

Friday, February 5  
3:15 p.m.  
Room 383-N