Algebraic Geometry Seminar

Mirror symmetry for Fano threefolds: toric degenerations, uniqueness and non-uniqueness.

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ABSTRACT

Mirror symmetry, from variations of Hodge structures point of view, relates Fano varieties and particular Laurent polynomials --- toric Landau--Ginzburg models. Such polynomial is not unique for given Fano variety. Conjecturally all ``good'' weak Landau--Ginzburg models correspond to toric degenerations of Fano varieties. We consider examples of such correspondence for Fano threefolds. In particular we observe ways to prove that particular toric varieties are degenerations of Rank 1 Fano threefolds. We reconstruct some numerical invariants of Fano varieties from their toric Landau--Ginzburg models. Finally we discuss geometry of toric Landau--Ginzburg models and prove that they, from some point of view, are unique.

- **Time & Date : 02:00p.m.~03:00 p.m. June 27 (Wed) 2012**
- **Place : Math Science Building room 404**