

Harvard-MIT Algebraic Geometry Seminar

The moduli space of cubic threefolds via degenerations of the intermediate Jacobian

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A well known result of Clemens and Griffiths says that a smooth cubic threefold can be recovered from its intermediate Jacobian. In this talk I will discuss the possible degenerations of these abelian varieties, and thus give a description of the compactification of the moduli space of cubic threefolds obtained in this way. The relation between this compactification and those constructed in the work of Allcock-Carlson-Toledo and Looijenga-Swierstra will also be considered, and is similar in spirit to the relation between the various compactifications of the moduli spaces of low genus curves. This is joint work with Radu Laza.

Tuesday December 18th
3:00 p.m.
Harvard Science Center (507)