Front Range Algebra, Geometry and Number Theory Seminar

Moduli spaces of sheaves on K3 surfaces and deformations

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It is a result of Mukai that connected components of the moduli space of stable sheaves on a K3 surface X are holomorphic symplectic varities. As any such component Y deforms in a 21 dimensional family, while the moduli space of K3 surfaces is 20 dimensional, the general deformation Y' of Y will not be be a moduli space of sheaves on a K3. This talk presents an attempt to associate to such a Y' a "non-commutative K3 surface" X' for which the modular description carries over. This joint work with Eyal Markman (UMass–Amherst).

Thursday March 3rd 2011
3:00-5:00 p.m.
MATH 350