Department of Mathematics,
University of California San Diego

* *

Algebraic Geometry Seminar

Benjamin Bakker
University of Georgia

A global Torelli theorem for singular symplectic varieties

Abstract:

Holomorphic symplectic manifolds are the higher-dimensional analogs of K3 surfaces and their local and global deformation theories enjoy many of the same nice properties. By work of Namikawa, some aspects of the story generalize to singular symplectic varieties, but the lack of a well-defined period map means the moduli theory is badly behaved. In joint work with C. Lehn, we consider locally trivial deformations—deformations along which the singularities don't change—and show that in this context most of the results from the smooth case extend. In particular, we prove a version of the global Torelli theorem and derive some applications to the geometry of birational contractions of moduli spaces of vector bundles on K3 surfaces.

Special Note:
There will be a pre-talk from 3:30 to 4:00 for graduate students and postdocs.

Host: Dragos Oprea

Friday, February 17, 2017
4:00 PM
AP&M 5829

* *