Algebraic Geometry Seminar

Moduli spaces of sheaves on moduli spaces of sheaves

Nicholas Addington (University of Oregon)

Abstract: It often happens that if M is a moduli space of vector bundles on a curve C, then C is also a moduli space of vector bundles on M, where the bundles on M come from taking "wrong-way slices" of the the universal bundle on M x C. This story starts in the '70s and is due to Narasimhan and Ramanan, Newstead, and others. Reede and Zhang recently observed that a similar result holds for Hilbert schemes of points on surfaces, and for certain moduli spaces of rank-0 sheaves on K3 surfaces. I will discuss joint work with my student Andrew Wray, showing that it holds for moduli spaces of high-rank sheaves on K3 surfaces. Techniques include the Quillen metric on determinant line bundles and twistor families of hyperkaehler manifolds.

Monday, January 25 at 3:00 PM in Zoom