Math 208 - Algebraic Geometry Seminar

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Algebraic non-hyperbolicity of hyperkahler manifolds

Abstract:
A projective manifold is algebraically hyperbolic if the degree of any curve is bounded from above by its genus times a constant, which is independent from the curve. This is a property which follows from Kobayashi hyperbolicity. We prove that hyperkahler manifolds are not algebraically hyperbolic when the Picard rank is at least 3, or if the Picard rank is 2 and the SYZ conjecture on existence of Lagrangian fibrations is true. We also prove that if the automorphism group of a hyperkahler manifold is infinite, then it is algebraically non-hyperbolic.

These results are a joint work with Misha Verbitsky.

Special Note:
Pre-talk 11:30am

Host: Elham Izadi

Friday, February 12, 2021
12:00 PM
Contact David Stapleton, dstapleton@ucsd.edu, for zoom access