

Speaker: Eric Riedl University of Notre Dame

> Wednesday, September 5, 2018 3:00 PM 258 Hurley Hall

Title: A Grassmannian technique and the Kobayashi Conjecture

Abstract:

An entire curve on a complex variety is a holomorphic map from the complex numbers to the variety. We discuss two well-known conjectures on entire curves on very general high-degree hypersurfaces X in P^n: the Green-Griffiths-Lang Conjecture, which says that the entire curves lie in a proper subvariety of X, and the Kobayashi Conjecture, which says that X contains no entire curves. We prove that (a slightly strengthened version of) the Green-Griffiths-Lang Conjecture in dimension 2n implies the Kobayashi Conjecture in dimension n. Our technique is substantially simpler than previous approaches to this question, and has already led to improve bounds for the Kobayashi Conjecture. This is joint work with David Yang.