

# Colloquium

University of Notre Dame  
Department of Mathematics

Eric Riedl - University of Illinois at Chicago

**Speaker:** Eric Riedl

University of Illinois at Chicago



**Will give a lecture entitled**

Spaces of rational curves on varieties

**Date:** Thursday, January 19, 2017

**Time:** 4:00 PM

**Location:** 118 Nieuwland Science

**Departmental Tea:** Tea in Room 257 (lounge in Hurley Hall) at 3:30 p.m.

**Abstract:**

Rational curves control the geometry, topology and arithmetic of varieties. After describing the basic objects involved, I will discuss some recent results on spaces of rational curves on hypersurfaces. In particular, these spaces are irreducible of the expected dimension for general hypersurfaces of low degree. In a different range of degrees, very general hypersurfaces contains only lines. I will also describe results on the stratification of the space of rational curves on  $P^n$  by the splitting type of the normal bundle, finding an infinite family of counterexamples to a conjecture of Eisenbud and Van de Ven.